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Address.

PRESIDENT'S ADDRESS AT THE ANNUAL MEETING OF THE MASSACHUSETTS TUBERCULOSIS LEAGUE, MAY 13, 1921.

By EDWARD O. OTIS, M.D., BOSTON.

THERE is a humorous saying, attributed to Josh Billings, I believe, that "it's better not to know so many things than to know so many things that ain't so." As the great campaign in the prevention and control of tuberculosis has been going on from year to year and as our knowledge of the etiology of the disease and our experience in dealing with it has increased, we are realizing that many things that we thought were "so," "ain't so," and this is leading us to gradually change our ideas with regard to many features in the problem, and consequently our methods of attack. For example, we no longer believe that it is possible or desirable to segregate the active adult consumptive for we do not believe that he is the menace to other adults that we once thought he was and, as unfortunately, many

people now believe. The danger is to the young child who has either not yet received his immunity infection or so recently received it that he has not developed his resistance to it. There is also, moreover, much evidence and authority for believing that the inhalation method of infection is comparatively rare, whereas we used to consider it the common method. Again, we do not now say that any case is *cured* but *arrested* and that relapse may occur under unfavorable conditions although the arrest may appear to have been well established. This fact, increasing experience in the treatment of the disease has taught us. We are not now predicting that tuberculosis will be abolished in any appreciable length of time; although the disease has been and is decreasing, still it is a very prevalent one. And furthermore, we have to remember that the general mortality is also decreasing. In our own state (Massachusetts) for example, in 1910 the general mortality from all diseases was 54,407 with a population of 3,366,416 and ten years later it was 52,345 with a population of 3,889,607, a decrease of 15%; while during the same period the deaths from tuberculosis of all forms were respectively 6,054 in 1910

and 4,893 in 1919, a decrease of about 28%, nearly double that of the decrease in the general mortality; and yet 4,893 deaths and between 40,000 and 50,000 active cases indicate that the disease is still a very prevalent one and is likely to continue so. As Dr. Armstrong says in his "Four Years of the Framingham Demonstration," which is the most comprehensive and reasonable exposition of the whole tuberculosis problem I have ever seen, "In spite of all measures there will be an irreducible standard of mortality from tuberculosis." In other words, in civilized communities the tubercle bacillus will always be present and there will always be a certain number who will suffer from the active disease and of these there will always be a certain proportion who will die of it; and until all the world becomes tubercle bacillus free I can see no other conclusions. We may consider this as part of the price we pay for civilization. For the Indian in his freedom was free from tuberculosis. Experience and investigation having taught us the futility of attempting to control the infecting germ of the disease, the tubercle bacillus, we have turned our attention to combatting those causes and conditions which transmute an infection from the bacillus into an active disease. We now employ all measures which conduce to the maintenance of good health especially with children, and in perfecting our machinery for detecting early cases, and for the aftercare and supervision of the half arrested cases discharged from the sanatoria. I need not enumerate the many instrumentalities now employed for the protection of health, such as nutrition clinics, health centers, health clinics, Children's Health Crusade, the care of children's teeth, school inspection, etc.; I have only to refer to the large space given in our present program to general health problems to prove our changed attitude in the tuberculosis campaign. A very significant change in this attitude towards the tuberculosis problem is the increased attention we are giving to the health of children. Here, I believe, is to be concentrated in the future our greatest efforts. It is too late to begin with the adult in our struggle against the disease. "In order to save a race," says Pasteur, "that is threatened with an infectious disease, the best plan is to save the cocoon." Two of the most hopeful and valuable means now developing for the protection of child health are

the Health Center and the Children's Health Crusade. In the latter the child is drilled in the formation of health habits at the age where habits are so easily formed. In the former, besides the inculcation of general habits, any deleterious ones of eating, drinking, posture, rest, play, etc., are corrected.

Until at least more careful school inspection and supervision of the health of school children is conducted by the public authorities, there should be a health center in every community.

If, as most authorities now agree, the majority of children in civilized communities are infected with the tubercle bacillus, such is its ubiquity, the natural step to take, it seems to me, is to find out at what age these children become infected so that we may guard them against the activity of this infection, and this is easily done through the Von Pirquet test, a discovery, as someone has said, only second to the discovery of the bacillus itself. If the child is under two years of age and is positive to the test we know the infection is active and hence a special protection of the child's health is indicated. If over two years of age the infection is probably not active but good care is suggested that it may not become so. I believe that all children both in the health centers and in the schools as well as in the community at large should receive this easily performed test. If vaccination against smallpox is considered necessary there is also good reason why this test should be applied not as a protection against tuberculosis, which however, in a sense it is, but as a guide for precautionary measures against a future active disease. Here is a new piece of work for local societies.

I desire, now, to consider another aspect of the tuberculosis campaign, namely, the part the state plays in it. Besides our membership in voluntary tuberculosis associations and the work we do there, we are all, men and women, citizens and voters in the state, and hence should have a lively interest in what the state does with the money which we contribute through our taxes in the control of tuberculosis. Last year, 1920, the state spent \$1,045,346 for the maintenance of the state sanatoria and subsidies to local hospitals. Besides this we have the amount spent by counties and cities in the erection and maintenance of consumptive hospitals; and this would amount to almost as much more. It seems to me that it is

our duty as a State League to see how effectively the state is spending this large sum of money. Are the sanatoria merely doing their allotted work, routine care of their patients, which, as someone has said, is to "retrograde," or are they contributing something to the knowledge of tuberculosis from the splendid clinical opportunities they command? I am conscious that there is great difficulty at the present time in obtaining properly instructed and trained physicians for these institutions, as well also as of obtaining nurses; but could not the sanatoria themselves do something to train such physicians? Why could not a certain number of advanced medical students or those just graduated be received as assistants or house officers in the sanatoria, as is done in the general hospitals, and thus obtain special training and experience in this disease? In a recent communication to the *British Journal of Tuberculosis*, Sir Henry Gauvaine in an article entitled "Training in Tuberculosis," very pertinently remarks, "that the outstanding need today in the tuberculosis service is not so much further expenditure on material but rather greater effort in the training of the personnel which must man the service." "A Mauretania," he continues, "may be built and launched, but unless she is provided with a suitable crew under the command of a competent captain, she will never cross the Atlantic. In tuberculosis we seek to build Mauretania; to spend much on construction and equipment. What do we do to insure that they are satisfactorily manned by a trained crew? It is to the man rather than to the method that the attention of the authorities should now be directed. The method should follow the trained man, not vice versa." Again, should not the members of the staff themselves be expected and encouraged to do some kind of research work in the domain of tuberculosis? In Connecticut it is the custom for the members of the staff of the various sanatoria to meet at one or the other institution at regular periods and present the results of investigation made by some member for discussion. Thus the interest in their work is maintained and increased and their service does not become a merely perfunctory one.

Dr. Armstrong tells us that the expert consultant was one of the most important instrumentalities in his Framingham Demonstration.

Why should we not have an expert consultant connected with the state tuberculosis department, who would visit and consult with the staff of the various sanatoria and suggest subjects for research and hold conferences, and thus stimulate them to do more than their mere routine work? Or, if not a full time state expert consultant, some one among the experts in our state could be employed from time to time to render such service. Just the very coming of such an expert would arouse enthusiasm in the regular staff. Furthermore, an expert advisor could hold clinics from time to time in various parts of the state to which the local physicians could be invited and thus a two-fold object could be accomplished, doubtful diagnoses could be confirmed, and the physicians receive valuable instruction. All cities in the Commonwealth of 10,000 inhabitants or more, as we know, are required by law to have tuberculosis dispensaries, and most of them have such, of one kind or another. There are still ten cities, however, that have not yet complied with this mandate. Just how efficiently these dispensaries are conducted is a question, and one which the local tuberculosis association might well investigate. Experience may show that the place of these local dispensaries may well be taken by the expert clinics inaugurated the last year by the State Tuberculosis Department or by clinics held by such an expert as I have mentioned above. A local dispensary conducted in a perfunctory way because the law requires it is obviously of limited value and is not likely to gain the confidence and support of the local physicians as is a clinic held by some outside expert. The Barnstable County experiment is a good example of the value of the outside expert as is also the Framingham Health Demonstration. There was inaugurated last year by the State Public Health Association of Maine, (the new name of the State Tuberculosis Association) at one of the Maine sanatoria, a five days' conference on the diagnosis and study of tuberculosis for the local physicians at which well known experts from abroad were invited to present various phases of the subject and to hold clinics. This venture proved to be very successful in the attendance and is to be repeated this year. Why should not the same or a similar plan be followed in some of our own state sanatoria? If the state has no funds

for such an undertaking could not our own League finance it as did a similar association in Maine? To quote Dr. Gouvaine again, "Short, carefully planned, intensive courses should be available for the practitioner of medicine and every inducement should be given for his attendance. Now that the treatment of tuberculosis is so rapidly being taken over by the state, it would be a sound and wise policy if these courses were not only available free of all cost, but also that the board and lodging should be free of expense. The community would benefit even more than the practitioner and if the former is prepared to give his valuable time the latter should see that at least he does so without expense to himself." Our sanatoria are gradually being equipped, I believe, with x-ray apparatus which is now considered essential in all modern tuberculosis institutions. X-ray interpretations, however, are often difficult and require the experience of the now recognized x-ray specialist. Why should not such a specialist be asked to visit our sanatoria from time to time and go over the plates with the member of the staff and interpret them from his point of view and experience in connection with the history and the physical signs of the case?

Are the sanatoria equipped with satisfactory laboratory facilities and are they used? Modern medicine depends much on laboratory evidence in the diagnosis and treatment of disease and it is obvious that laboratory work should constitute an integral part in the routine care of the patients as well as serve the purpose of any research work which might be undertaken. Here again, the supervision of the state expert will be very valuable in seeing that proper laboratories were equipped and maintained. We cannot, I suppose, expect our state sanatoria to do the grade of work which is done in some of our best private sanatoria, such, for example, as at the Loomis Sanatorium, to the last annual report of which I would call your attention as showing the kinds of tuberculosis work which can be carried on in a high grade sanatorium; but at the same time with a large clinical material, a well equipped laboratory, and an x-ray apparatus good work of a high order can be done, given a trained and enthusiastic personnel.

Again we have an admirable state health department and many equally progressive local

health boards, but I suspect that in some communities the people are not alive to the value of an efficient health board or health officer. In this country sooner or later the people get what they want and if in any community the health department is poor or inefficient the community itself is to blame for it. Dr. Hatfield recently said, "No member of a community, rich or poor, young or old, is independent or separated from the health problem of the community." I was recently looking over the report of appropriations of a town of 5,000 inhabitants, a town supposed to be a particularly intelligent one. This was the list:

For the Town Library.....	\$3,750
For Highways, Bridges & Streets.....	14,760
For Street Lighting.....	6,000
For Oiling the Streets.....	3,000
For Police.....	5,000
For Water.....	5,000
For Insect Pests.....	1,000
For the Health Department.....	500

And the health officer a physician whose conception of his duties seemed to be looking after a stray case of infectious disease occasionally. It is to be doubted if this case is a very exceptional one. Is it not within the province of local tuberculosis associations to use every endeavor to educate their community as to the supreme importance of their health protection through an efficient health department and to make liberal appropriations for the same? "The reason for the existence of the non-official health agency," to quote Dr. Hatfield again, "is the imperfect provision of facilities for our official health agencies." I believe that women who are now of the electorate, should have a place on health boards and would be extremely valuable in this capacity. Unnecessary deaths and sickness through defective sanitary conditions is more expensive than a well paid health board and we must teach our respective communities this truth. After all, any outside agency, or local association even, can only teach the importance of proper health supervision. It depends upon the citizens themselves to recognize this importance and pay the cost, for as has so often been said "good health is purchasable." Unfortunately, however, the lesson has sometimes to be learned through needless loss of life and suffering from an avoidable disease. Many tuberculosis associations are changing their

names to health associations which indicates the broader view they take of the instrumentalities which can be and must be employed in contending with the disease. Knowing that we can not eliminate the bacillus and in the present state of our civilization we would not if we could, for complete tubercularization of the race seems under the present condition to be the most hopeful outlook, we must use all health measures for rendering the tubercle bacillus innocuous after he has lodged in our bodies from the childhood infection, and this we are doing in many ways and by many methods, some old and some new, each association stressing this or that measure as their conditions seems most to need. For example, in a factory town it may be industrial nursing in factories and medical examination of their employees, in another nutrition clinics, and in a third the care of school children's teeth, and so on. While at the same time not neglecting other standard health instrumentalities and the accredited special means of discovery by surveys of all existing cases of active tuberculosis making early diagnoses and the proper disposal of those suffering from the disease and particularly the protection of young children from infection, or those who have been recently infected, and by the education of the consumptive and his entourage.

There has been a great deal of discussion regarding prohibition and its infringement upon state and individual liberty. Whatever opinion we may hold as to this, as tuberculosis workers we can all be of only one opinion regarding its influence as a preventive measure against tuberculosis. If, as some one has said, "Alcohol makes the bed of the consumptive," then, fortunately we are now freed once and for all from this sinister bed making.

If we have not before us the brilliant prospect of ultimately entirely eliminating tuberculosis, we can at least find full satisfaction and encouragement for continued exertion in the prospect of greatly reducing its ravages and adding a few more years to life expectancy, while at the same time our efforts are improving the general health of the community. It is a profound moral truth that no man can do good or evil without affecting, for better or worse, other individuals, and without raising or lowering the general level of public well-being, be it in morals or sanitation, hence every measure which makes for the ameliora-

tion of living conditions has its legitimate place in the social defense against tuberculosis. Indeed it has become increasingly obvious that the tuberculosis warfare has stimulated efforts to improve public health in many and varied directions just as no great beneficent movement can fail to produce other advantages and beneficial results than the one toward which it is directly aimed. In contending with one enemy we are at the same time destroying others which help to make and perpetuate the one.

The longer and more deeply one contemplates tuberculosis and the greater one's experience with the disease, the more profoundly impressed one becomes with the truth that it is a social disease and that all efforts, moral, social and industrial, both public and private, must coöperate in the campaign against it. In fighting tuberculosis we have found that we must also fight against those innumerable conditions which are inimical to the public health and conversely in combatting these conditions we are preventing the causes which create active tuberculosis.

Original Articles.

THE REDUCTION OF HYPERTENSION IN AN UNUSUALLY DIFFICULT CASE BY MEANS OF A "SALT-FREE" DIET.

By M. J. KONIKOW, M.D., BOSTON,
AND
MELLARD SMITH, M.S., BOSTON.

THE following work was inspired by Dr. F. M. Allen, who, upon reading a recent paper by one of us,¹ reporting an unusual case of hypertension in which pneumonia developed, urged us to attempt to duplicate the lowering of the hypertension (the striking concomitant of the pneumonia) by means of a "salt-free" diet which he outlined in detail and placed at our disposal. Thanks to his kind encouragement and the cheerful coöperation of our patient, we were able to continue our observations for a period of one-hundred and fifteen days. Chemical examinations of the blood were made at suitable intervals, the blood always being drawn in the morning before breakfast. Twenty-four hour specimens of urine were obtained frequently as a careful check upon the patient's adherence to diet. Non-protein nitrogen, urea nitrogen and blood sugar were determined upon

whole blood by the methods of Folin and Wu.² Whole blood and plasma chloride determinations were made with a method recently published by one of us.³ The urine nitrogen values were obtained in the same manner as the blood non-protein nitrogen figures after suitable dilutions of the urine before digestion. The method of Harvey⁴ was used for urine chloride estimation. The blood pressure observations were made at corresponding periods with a Sanborn sphygmomanometer. The patient was carefully watched clinically, the general condition, pulse and blood pressure being noted. All of the data of our observations are incorporated in Chart I and Table II.

The object of our observations was a married woman of 54 years, who at the age of 30, a few years after giving birth to her only child, was operated upon for tuberculous salpingitis and localized tuberculous peritonitis, when both tubes and ovaries were removed. Notwithstanding the character of this operation the patient continued to menstruate for eight years after the operation, when the menopause occurred.

The patient came under the observation of the senior author in May, 1911, but until February, 1919, these observations were few in number. It seems that the patient's troubles began with the established menopause. She began to suffer frequently with rheumatoid, muscular and sometimes obscure pains in the joints and many other parts of the body. Frequently, too, she would complain of an annoying itch, generally distributed but without any visible signs on her skin (pruritus cutaneus). Insomnia and headaches, sometimes very severe, followed the other symptoms. The pulse would invariably be above 80, frequently reaching 100, accompanied however by a normal temperature. She would be very irritable and easily excited. Frequently a tremor of the fingers and sparkling eyes were observed. Occasionally there was noted an enlargement of the thyroid. Physical examinations of the patient revealed nothing abnormal about the chest or abdomen; the heart, excepting a slightly exaggerated second aortic, appearing to be normal as were also the lungs, liver, stomach and spleen. Many urine examinations for albumen or for sugar were always negative. The volume and specific gravity of the urine were always within normal limits. A Wassermann was likewise negative. The microscopical blood pic-

ture showed nothing unusual. An old perforated drum of the left ear with an occasional discharge was the only visible pathological condition outside of the removed ovaries and tubes.

The first observation of her systolic blood pressure was 230 mm. on February 5, 1919. From this date to August 27, 1919 frequent observations were made, with results shown in Table 1. It is seen from this table that the patient's blood pressure never dropped below 230 mm. had reached a maximum of 275 mm. on February 12, 1919. All attempts to reduce the hypertension failed until the patient on February 26, 1920, contracted an influenza-pneumonia, during which the systolic pressure began to fall steadily until at the height of the fever it reached 130 mm., and upon her complete recovery rapidly rose again to the usual height.

On August 27, 1920 her blood pressure was 260-110 mm., which, after a period of pancreatin administration was 235-120 mm. on September 20, 1920. At this time a short period of preliminary observation was begun in anticipation of the prolonged period of "so-called salt-free diet" suggested by Dr. Allen.

We say "so-called salt-free diet" because in reality, no diet of natural foods can be made absolutely salt-free, as all animal and vegetable food stuffs contain varying but appreciable amounts of chloride. It is therefore at the best

Date	Blood Pressure S. D. mm.	Pulse per min.	Condition of patient.
February 5 1919	230		Fecis comfortable. Heart sounds normal.
" 6	260		
" 9	270		
" 12	275		Headaches and dizziness.
March 3	270		Proteinuria tablets, t. i. d.
" 10	250	86	Fecis good. Proteinuria continued.
" 17	240	84	Pulse regular.
" 31	230		Fecis better, sleeps good.
April 14	240	120	
June 4			Started on Thyro-ovarian ext.
August 9	245		Placed her in hospital for observation.
" 27	250		

a salt-poor diet, *i.e.*, a diet that is made up of foods containing a minimum amount of chloride.

Friedenwald and Ruhrah⁸ give an excellent lengthy table of the contents of chloride and protein in different foods, natural and prepared, which, in some form or other, constitute a part of our dietary. Sherman⁹ also publishes a similar table of chloride and protein content of a great number of foods.

The following daily "salt-free" menu was prepared by Dr. Allen for our patient and she was instructed to refrain from using salt in any form in preparing her meals from this menu:

Breakfast: Tea, coffee or cocoa with cream and sugar; eggs or chops or steak without salt; orange, grapefruit, banana, apples, prunes or any other raw or cooked fruit (fresh, not canned); any kind of cereal if bought raw and cooked in the patient's kitchen without salt, with cream and sugar.

Lunch: Tea, coffee, eggs, meat, sugar, rice, perhaps one ounce of green vegetables; dessert of fresh fruit, nuts, salt-free cake, pie, or pudding (made at home).

Dinner: Similar to lunch. Pepper, spices, vinegar, vanilla, etc., can be used for flavoring at any time.

Chart I and II give the measure of success of the above diet in its effect upon the lowering of the hypertension of our patient. The systolic blood pressure though slowly and unevenly, yet steadily and definitely, fell from its preexperimental height of 235 mm. to 170 mm. on the last day of the "salt-free" diet, and rapidly rose again with the reintroduction of the previous unrestricted diet. This steady fall and final rise of the systolic blood pressure is better indicated by the heavy black line in Chart I, where the averages of the systolic pressures over ten day periods are plotted.

Though the patient was entirely trustworthy in her endeavor to live up to the conditions of the experiment and willingly cooperated with us, we nevertheless had absolute proof of her adherence to the prescribed diet in the figures we obtained from the daily volumes of urine and its salt content. While the volume of the urine was lower than normal, this was to be expected from the greatly reduced salt excretion which on November 27 reached the lowest figure of 0.23 gm. NaCl as against 11.88 gm. NaCl at the beginning of the experiment and 15.39 gm. NaCl on the second day of the reintroduction of salt in the diet.

An additional proof that the "salt-free" diet was the only factor in reducing the patient's systolic blood pressure lies in the fact that the patient continued her usual activities as housewife and enjoyed a diet rich in protein-containing food, as meats, eggs and fish. In fact, at one time, when during the period from October 24 to November 6 her nitrogen excretion considerably increased and reached a maximum of 18.6 gm. she was advised to eat less meat with the result that she regulated her diet so that the excretion thereafter averaged about 8.0 gm.

As to the chemical findings in the blood during the time of observation, we were not so fortunate in securing striking results, excepting that in a general way the chloride content of the plasma was reduced to a lower level than the one we started with and that the chloride content rose again with the resumption of salt in the diet. The figure for plasma NaCl on November 14 we are unable to explain. It should be mentioned that the patient's kidney chloride threshold was exceedingly high, and this factor may account for the apparent slight reduction of the plasma chloride. It might also account for the long period necessary for the reduction of the hypertension.

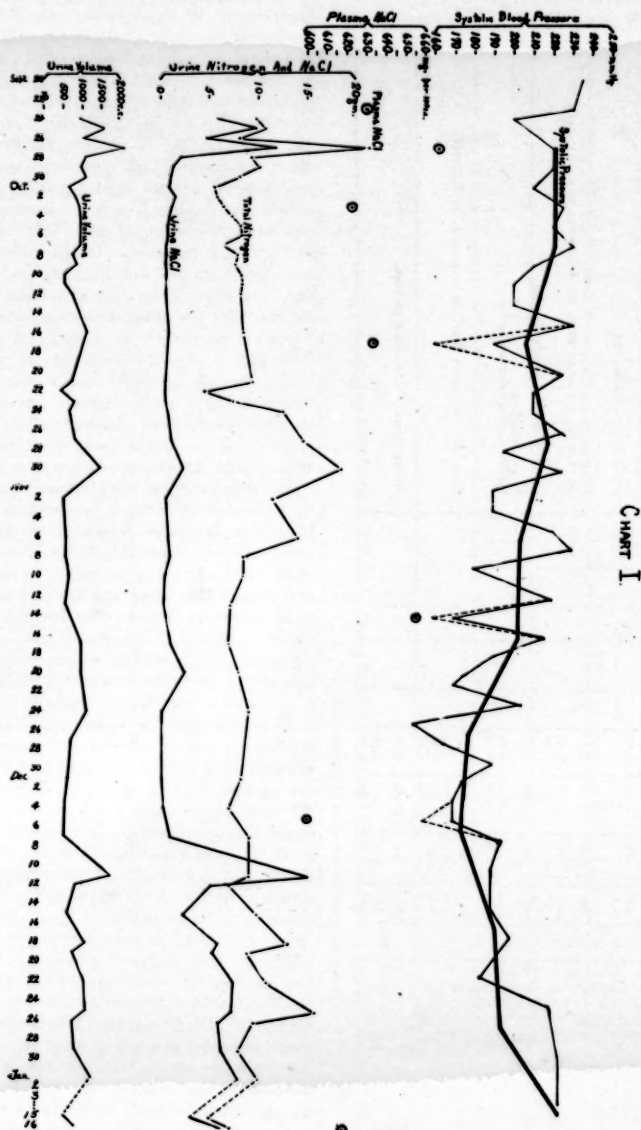
It is noteworthy that during the whole experiment the patient retained her original weight, that her renal function was good, judging from the phenolsulfonephthalein test on November 14, and that the pruritus cutaneous, of which she was a sufferer for many years, had disappeared and that it reappeared two weeks later after the resumption of the salt diet. The headaches and especially the insomnia, of which the patient was a constant sufferer, did not entirely disappear, though they became less frequent.

Another point worthy of mention is that the blood pressure immediately after each withdrawal of blood invariably dropped, though only temporarily, lasting sometimes over twenty-four hours. This is indicated by broken lines in the blood pressure curve on September 24, October 17, November 14, and December 5. (See Chart I.)

The period from November 16 to November 29 must be critically examined before too definite conclusions can be drawn. While the blood pressure curve during this period fits in very nicely with the remainder of the experiment, a complicating factor which would seem

TABLE II.

Date	Head	Pulse	24-hour Urine.			Daily Blood Sugar			Plasma Sugar	Remarks.
			Vol.	Sp. Gr.	Amount	8 A.M.	12 M.	8 P.M.		
Sept. 20	120	235	88			955	1.017	9.45	5.97	
21	120	235	88			1000	1.011	10.31	9.84	Blood drawn 8:00 am. Weight 146.
22	120	235	88			1030	1.013	10.19	8.02	
23	110	200	88			1030	1.013	10.19	8.02	
24	120	220	92			1200	1.014	11.38	11.48	
25	120	220	88			1200	1.009	9.38	2.10	Blood drawn 8:00 am.
26	120	220	88			1200	1.012	10.09	1.33	Felt faint and dizzy.
27	120	220	88			1200	1.008	9.05	1.02	Splitting vertex headache.
28	120	210	84			700	1.012	5.67	.88	Blood drawn 8:00 am.
29	120	210	84			700	1.012	5.67	.88	
30	120	210	84			700	1.012	5.67	.88	
Oct. 1	120	210	84			700	1.012	5.67	.88	
2	120	210	84			700	1.012	5.67	.88	
3	120	210	84			700	1.012	5.67	.88	
4	110	200	88			900	1.011	7.33	.88	
5	110	200	88			900	1.016	8.25	.86	
6	118	230	100			900	1.012	6.48	1.17	
7	118	230	100			900	1.012	6.48	.88	
8	120	210	96			950	1.011	7.80	.80	Had a bad day.
9	120	210	96			950	1.011	7.80	.80	Felt good today.
10	120	210	96			950	1.011	7.80	.80	
11	125	200				900	1.021	8.42	.72	
12	130	200	100			750	1.015	8.24	.84	
13	130	200	100			1200	1.011	8.04	.82	Says she feels better
14	110	200	100							Blood drawn 8:00 am. Had bad night; Isaacmia. By mistake took some food that contained salt.
15	110	200	100							
16	118	225	90			950	1.015	8.15	.53	
17	118	225	90			950	1.015	8.15	.53	
18	118	210	88			475	1.026	4.70	.51	
19	118	210	88			800	1.014	7.48	.50	
20	125	210	88			700	1.016	12.60	.84	
21	125	210	88			700	1.016	12.60	.84	
22	125	210	88			700	1.016	12.60	.84	
23	125	210	88			700	1.016	12.60	.84	
24	125	210	88			700	1.016	12.60	.84	
25	125	210	88			700	1.016	12.60	.84	
26	125	210	88			700	1.016	12.60	.84	
27	125	210	88			700	1.016	12.60	.84	
28	125	210	88			700	1.016	12.60	.84	
29	125	210	88			700	1.016	12.60	.84	
30	125	210	88			700	1.016	12.60	.84	
31	125	210	88			700	1.016	12.60	.84	
Nov. 1	117	190	84			550	1.016	11.35	.83	Sleeps better; feels better.
2	120	190	88			600	1.020	14.04	.96	Isaacmia.
3	120	190	88			600	1.020	14.04	.96	
4	120	190	88			600	1.020	14.04	.96	
5	118	220	100			600	1.022	8.53	1.05	Ordered to eat less meat and fish.
6	115	180	84			700	1.016	8.70	.63	
7	115	180	84			600	1.017	7.13	.54	
8	115	180	84			600	1.017	7.13	.54	
9	115	180	84			600	1.017	7.13	.54	
10	115	180	84			600	1.017	7.13	.54	
11	115	180	84			600	1.017	7.13	.54	
12	115	180	84			600	1.017	7.13	.54	
13	115	180	84			600	1.017	7.13	.54	
14	115	180	84			600	1.017	7.13	.54	
15	115	180	84			600	1.017	7.13	.54	
16	117	217	92			1000	1.011	7.02	1.16	Blood drawn 8:00 am. Phenolphthalein Elimination = 99% in 2 hrs. 10 min.
17	117	217	92			1000	1.011	7.02	1.16	Isaacmia; had a slight cold; no headache.
18	117	217	92			1000	1.011	7.02	1.16	Isaacmia; cold worse; sore throat; slight cough; headache.
19	117	217	92			1000	1.011	7.02	1.16	In bed all day yesterday; had cough and headache; ease today.
20	117	217	92			1000	1.011	7.02	1.16	Temperature 99.5 am., 101 pm.; respiration 24; Quinine gr. 3.
21	117	217	92			1000	1.011	7.02	1.16	Temperature 99.5 am., 101 pm.; respiration 24; Quinine gr. 3.
22	117	217	92			1000	1.011	7.02	1.16	Temperature 99.5 am., 101 pm.; respiration 24; Quinine gr. 3.
23	117	217	92			1000	1.011	7.02	1.16	Temperature 99.5 am., 101 pm.; respiration 24; Quinine gr. 3.
24	117	217	92			1000	1.011	7.02	1.16	Temperature 99.5 am., 101 pm.; respiration 24; Quinine gr. 3.
25	117	217	92			1000	1.011	7.02	1.16	Temperature 99.5 am., 101 pm.; respiration 24; Quinine gr. 3.
26	117	217	92			1000	1.011	7.02	1.16	Temperature 99.5 am., 101 pm.; respiration 24; Quinine gr. 3.
27	117	217	92			1000	1.011	7.02	1.16	Temperature 99.5 am., 101 pm.; respiration 24; Quinine gr. 3.
28	117	217	92			1000	1.011	7.02	1.16	Temperature 99.5 am., 101 pm.; respiration 24; Quinine gr. 3.
29	117	217	92			1000	1.011	7.02	1.16	Temperature 99.5 am., 101 pm.; respiration 24; Quinine gr. 3.
30	117	217	92			1000	1.011	7.02	1.16	Temperature 99.5 am., 101 pm.; respiration 24; Quinine gr. 3.
31	117	217	92			1000	1.011	7.02	1.16	Temperature 99.5 am., 101 pm.; respiration 24; Quinine gr. 3.



cess would merely retard a dietary procedure for reducing blood chlorides and would in no way be an aid. Therefore, we can consider that on November 29 the patient was in practically the same condition that she was on November 16, and that the subsequent final drop of the systolic pressure to a constant level between 170 and 175 mm., for five days, was due to the long continued restriction of salt in the diet.

Very likely the wide fluctuations in the systolic curve are due to a rest factor, but the fact that the patient in no way varied from her usual routine and that she intermittently spent many days in bed before she started on the "salt-free" diet, with no reduction of the systolic pressure at any time below 200 mm., would rule out the argument that the final reduction of the hypertension was due largely or even in part to rest. It is also to be noted that while the fluctuations are large there is towards the end of the experiment a steady falling-off of the high peaks until the curve is level for three successive observations.

In conclusion, our observations, though necessarily limited to one case only, support the view that lessened intake of salt is a lowering factor in hypertension cases. Our case, we think, was unusually difficult, as little benefit was noted from the diet until almost the end of the experiment which had covered many weeks. Presumably, if the "salt-free" diet had been continued, even more, striking lowering of the hypertension and plasma chloride would have ensued as, judging from the figures obtained, the patient was just at the beginning of relief from her symptoms and the factors partially involved in causing her symptoms, when it was necessary to conclude the experiment due to the lack of time. As a rule hypertension cases secure relief from their distressing symptoms within a very short period after the introduction of the "salt-free" diet and with this relief there is a reduction of hypertension. In our case the outlook was very discouraging for many weeks and this fact emphasizes the need for prolonged treatment in some cases before results can be secured. Another important point to be noted is that the diet must be carefully followed with urine examinations to be sure the patient is keeping the salt intake at a very minimum. It is desirable to keep the salt excretion below 1.0 gm. NaCl, and better below 0.5 gm. It will be seen that in our case

we were not entirely successful in this matter, but notwithstanding this, the hypertension was definitely lowered and improvement in her symptoms was noted.

While there is no doubt that the high pressure in some cases is the result of a protective mechanism of the organism, we cannot agree with the non-interference policy of some clinicians, especially when such high blood pressure develops threatening symptoms.

Our patient, unquestionably, did not lose in strength, she suffered less from insomnia and headaches, the disturbing skin symptoms were abolished, an added load was removed from her heart, and the possibility of cerebral hemorrhage was considerably lessened. While at first the lack of salt in the diet was a considerable discomfort, the patient, at the end of the experiment, admitted that she cared less for salt than formerly, and it was difficult for her to consume the amount of salt that we desired her to take after she was placed back on the unrestricted diet.

We do, however, agree with Allen⁷ that this dietetic treatment is only palliative and that we do not reach the real cause of faulty metabolism of chloride. It is possible that there is an endocrine basis for the hypertension occurring in our patient, for she showed outspoken symptoms of disturbed function of the thyroid gland, induced possibly by the early removal of the ovaries. The therapy, therefore, in such cases perhaps should not be limited to "salt-free" diet alone. This may merely be the preliminary step which will pave the way to a more rational treatment, i.e., of removing the cause of the salt retention. The *modus operandi* of such treatment may lie in the province of organo-therapy.

We are greatly indebted to Dr. F. Gorham Brigham, Boston, for his generosity in placing his laboratory at our disposal for the chemical work; also to Miss Selma E. Wolcott who carried out many of the urine nitrogen determinations.

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UNRECOGNIZED SYPHILIS.*

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THAT early syphilis is often unrecognized by the medical profession is shown by the fact that many cases of late syphilis previously unrecognized and untreated are seen in hospital clinics and in private practice. Although this has long been recognized by syphilographers, nevertheless, it is only too clear that the foregoing should be brought repeatedly to the attention of the medical profession.

Hardly a day passes that one or more chancres of the lip are not seen and recognized in the syphilitic department of any large hospital. A very large proportion of these extragenital primary lesions are referred to the clinic for treatment without previous recognition of the disorder. Many cases of longstanding syphilis, previously unrecognized, are seen in practically every other department of a general hospital.

It is my impression that of all diseases syphilis is less frequently recognized by the medical profession despite the fact that, according to Downing,¹ it probably causes more deaths than cancer.

In other diseases, tuberculosis for instance, the diagnosis is often made at home, the cough, blood spitting, and loss of weight, all suggesting the diagnosis. In disease of the circulation, dyspnea and cyanosis leave little to seek in the way of a probable cause, and the blood pressure machine of the life insurance examiner often discloses hypertension.

Unfortunately, it is not so, however, with syphilis, for frequently the first warning of disorder may come in the birth of a syphilitic child born of supposedly healthy parents, the occurrence of a paralytic shock in the fourth decade, or in the commitment to an insane hospital, on account of paresis, of a man previously considered in good health.

PREVALENCE.

Osler,¹ analyzing the statistics of the Registrar-General for 1915, estimated that the actual deaths from syphilis were above 60,000, which placed it at the top of infections. Osler

included stillbirths, deaths of infants under one month, and other syphilitic conditions.

In New York City (Vedder²), during the fourteen weeks from July 4 to October 3, 1915, 25,633 infectious and contagious diseases were reported. Of these, syphilis stood first with 28%, tuberculosis 21%, diphtheria 13%, measles 11%, scarlet fever 4%.

Downing,³ analyzing the vital statistics for Massachusetts for 1912, estimated the mortality from syphilis at 3,000 or about one in every 18 deaths.

Leredde⁴ showed that in 1910 the annual mortality from syphilis in Paris was 3,364, and that syphilis probably killed 25,000 persons every year in France.

Fournier⁵ estimated that 15% of the adult population of Paris were infected with syphilis. While this estimate is subject to criticism, as others are, it is based probably on the largest clinical experience of any one man in France, or even in any part of the world.

Dr. Douglas White⁶ estimated that in the United Kingdom about 7% of the total population were syphilitics, that is 3,000,000 syphilitics. The Royal Commission concluded that not less than 10% of the whole population in the large cities had syphilis, either acquired or congenital.

Dr. Charles K. Clark⁷ concluded that 12% of the patients admitted to the public wards of the Toronto General Hospital since 1916 had syphilis.

Vedder stated that among the presumably healthy men of the class that enlist in the U. S. Army, including unskilled labor, about 20% have syphilis. The per cent. increases with age.

Among the Negroes, the rates are at least double those of the white race and it is more frequent among the women than men. It is probably the greatest cause of death and disability in the Negro race.

In 100 of the leg ulcers in the Out-Patient Department of the Massachusetts General Hospital in 1919 and 1920, a total of 10% had positive Wassermann.

SYPHILIS INCONTIUM.

Among the innocently infected, extragenital lesions are not nearly as rare as is generally supposed. Bulkley⁸ searched all literature up to 1892, comprising 20,000 cases of extragenital

*Read at the annual meeting of the Portsmouth Medical Society, Portsmouth, New Hampshire, on February 2, 1921.

infection, and concluded that innocent extragenital infections constitute from 5% to 10% of the total infections with syphilis. Wives infected by their husbands rarely have any knowledge of the disease and therefore are unable to give any history. Such cases frequently lead to error, the physician relying on the absence of a specific history, does not even consider the possibility of the disease, although such a patient may come to him suffering from symptoms such as headache, rash, mucous patches, or perhaps there may be a history of miscarriages, stillbirths, or both.

It is the natural tendency for a husband who has contracted syphilis venereally to conceal the fact from his wife for obvious reasons. This also applies to the wife. In either case, infection from one to the other usually follows despite attempts to prevent it, and in many cases the symptoms and manifestations are ascribed to some other cause and considered trifling both by those infected and also too frequently by the physician. Unfortunately, it is not the rule in a case of late syphilis to get a typical history of a primary sore with the usual secondary signs.

Time and again, in the case of syphilis in a married woman, the only history obtained will be that of one or more miscarriages, and in the case of a man, the admission perhaps of a case of gonorrhea.

MANIFESTATIONS IN WOMEN.

I have often been struck by the manifestation of the disease in women. In many cases, the signs and symptoms are so meagre that it would seem that women must have greater immunity than men. It has been noted that traumata, such as the smoking and chewing of tobacco, increase the susceptibility to mucous patches. This may explain the more frequent occurrence of mucous patches in men. It has also been noted that these lesions are more common in women who smoke. The female skin is usually more susceptible to irritants, but syphilitic lesions of the skin, in the secondary stage particularly, are as a rule, less marked in women than in men. Perhaps this peculiar expression of the disease in women is, in part, the cause of frequent non-recognition.

EFFECT ON CIRCULATION.

The effect of syphilis on the circulation is well known but often unrecognized. It is now believed that practically 50% of the cases of disease of the aorta, developing after the twenty-fifth year, are of syphilitic origin.

Studying the diseases of the aorta in individuals over twenty-five years old at the Massachusetts General Hospital for the years of 1917, 1918, 1919, 1920, a total of 165 cases, 79 were proven syphilitic, that is, 47.8%. In this series were included the pure aortic insufficiency and those accompanied by diseases of the mitral valve. Probably a much greater percentage were syphilitic.

CONFUSION WITH OTHER DISEASES.

It is remarkable the number of diseases which are confused with syphilis by the profession, among the more common being psoriasis, pityriasis rosea, the various forms of tuberculosis, smallpox, simple leg ulcer, and diphtheria. Unfortunately, the typical secondary macular rash is overlooked because of the frequent difficulty in demonstrating the rash under the most favorable conditions of room temperature and light.

CASE 1. Mrs. R. S., 47, was referred to me for treatment of gastric ulcer. Family history, negative. Had one premature baby at the seventh month. There were no miscarriages nor further pregnancies. Never any serious sickness. Ten years ago began to have stomach trouble. For the past five years had grown steadily worse. At first there was a simple distress after eating, with eructation of gas. She vomited once or twice a week, soon after meals. She complained of severe headaches. There had been no loss of weight. The physical examination was negative with the exception of the anterior surface of the left tibia where there was a tender area the size of a ten cent piece. The Wassermann was negative.

On questioning the husband, he gave a history of untreated syphilis of fifteen years' duration. Physical examination showed a beginning specific aortitis with marked periostitis of both elbows. The Wassermann was strongly negative.

This case shows the importance of suspecting syphilis with a history of a stillborn child, and the absence of further pregnancies, and is also of value in showing the importance of questioning and examining the husband (or wife).

CASE 2. A man 48 years of age was referred because of a persistent bronchitis. He gave a past history of gonorrhea fifteen years before. This was accompanied by marked phimosis of the prepuce. He denied chancre. Ten years ago he was told by his physician that he had high blood pressure and that nothing could be done for it, and that he would probably die of apoplexy. Physical examination showed his blood pressure to be 240-140. There was marked enlargement of the aortic arch and tortuosity of the superficial arteries. The analysis of the urine, specific gravity 1020, albumin 1.4%. Nothing pathological was found in the sediment. In all probability the initial lesion in this case was hidden beneath the prepuce and was undiscovered by the physician. The Wassermann was strongly positive. One month after treatment was begun the systolic blood pressure fell to 150. The bronchitis rapidly cleared up, the albumin decreased to a large trace and finally to the slightest possible trace.

I advised him to have his wife examined, which he agreed to do, but he was obliged, on account of business interests, to leave the city, and he has been lost track of. He fortunately realized the importance of his trouble and will, in all probability, continue treatment.

This case is of importance in demonstrating the fact that this man was innocent of ever having had syphilis. It is also of value in showing the importance of finding a possible cause for the circulatory changes. If the diagnosis had been made twelve years ago, the progress of the disease might have been arrested.

CASE 3. A woman of 45 was referred to me for so-called rheumatism. She was the mother of seven children, all well. The last three pregnancies resulted in miscarriages. About six months ago she began to have severe pain in the right shoulder, not relieved by the usual remedies. She also complained of severe nocturnal occipital headaches. The blood Wassermann was negative. There was a slight unevenness of the anterior surfaces of both tibiae. The physical examination was otherwise negative.

On questioning the husband, he admitted that eight years before he had acquired syphilis and had been treated for a short time. Physical examination showed in his case a typical aortitis with the usual vascular degenerative changes. His Wassermann was strongly positive. The wife was given the usual anti-syphilitic treatment and the arthritis rapidly cleared up.

This case is of interest in showing the danger of excluding syphilis by a negative Wassermann and also the importance of examin-

ing the husband. The living seven children were healthy, the infection taking place just before the three miscarriages.

CASE 4. Referred to me for examination of the lungs. Mr. F. J. O., age 33, married. Family History—Wife well. First child died shortly after birth of cause unknown. Second child now well. Last three pregnancies resulted in miscarriages. Past History—Never any serious disease. Denies venereal. Present Illness—For the past five months has had a persistent cough, raising considerable sputum. About one month ago he began to grow hoarse. He felt feverish and tired.

Physical Examination—Physical examination showed normal resonance throughout. Many loud, coarse râles throughout the whole right chest. There was no increase in fremitus or other abnormal change. Physical examination otherwise negative. Blood Wassermann positive. He was given salvarsan and potassium iodide followed by mercury injections. Within two weeks all signs in the chest, together with the hoarseness, had disappeared, and there had been five pounds gain in weight. The examination of the wife was practically negative. She was an apparently healthy woman. The blood Wassermann was negative. I have reason to believe, however, that she had been infected with syphilis and that the miscarriages had come as a result of the infection. She was given a thorough course of iodide and mercury.

This case is of interest in that the chief symptoms were thought to be due to early tuberculosis and the possibility of syphilis was not even thought of.

CONCLUSIONS.

1. Syphilis is a very prevalent disease.
2. In the consideration of almost any disease, a physician should not hesitate to make a tentative diagnosis of syphilis. The signs and symptoms may only remotely suggest syphilis, but careful inquiry as to past history, together with painstaking physical examination of the patient and perhaps of others of the family, may reveal bits of evidence which taken singly may be of no importance, but when taken as a whole may make the diagnosis of syphilis unquestionable.
3. Any patient, forty-five years of age or over, who shows an increase in blood pressure should have the benefit of a Wassermann test. Should this prove negative, it is only fair to the patient to apply the therapeutic test, using potassium iodide, mercury, salvarsan, or all of

these in combination for a period long enough to prove the possibility of syphilis.

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REMARKS ON THE DIFFERENTIAL DIAGNOSIS BETWEEN TUBERCULOSIS AND CERTAIN OTHER CHRONIC PULMONARY INFECTIONS WITH SPECIAL REFERENCE TO THE LATE EFFECTS OF GAS AND INFLUENZA.*

By JOHN B. HAWES, 2ND, M.D., BOSTON.

THE subject that I have chosen for discussion constitutes one of the most difficult as well as one of the most important problems of internal medicine, namely, the differential diagnosis between pulmonary tuberculosis and certain other lung conditions. Among these latter I shall call special attention to the late effects of gas and the after effects of influenza not only upon the lungs but upon the rest of the human system as well. I shall likewise take up briefly certain points in regard to new growths of the lung, lung abscess, bronchiectasis, unresolved pneumonia and pneumoconiosis.

Two years ago, before the Canadian Tuberculosis Association, I discussed certain diagnostic standards in the diagnosis of tuberculosis as prepared by the National Tuberculosis Association for the Community Health and Tuberculosis Demonstration now being carried on at Framingham, Massachusetts. I urged the adoption of such standards for Canada as well as for my own country. At the present time I feel that these standards must be changed in certain respects owing to new and puzzling conditions that have arisen. One of these and one concerning which the medical profession of Canada has had more experience than have we in the States, has been presented to us by the Hun. I refer to the effects and especially the late effects

of lethal gas upon the respiratory tract and the human system in general. The other comparatively new disease consists of that combination of signs and symptoms that have so often followed an attack of influenza that occurred during the year 1918 or 1919. As consultant in diseases of the chest for the New England Division of the United States Public Health Service, I am seeing large numbers of ex-service men in order to determine the diagnosis of some pulmonary condition. In fully 80% of these men a provisional diagnosis of pulmonary tuberculosis has already been made but in an astonishingly large proportion I have been unable to confirm this diagnosis. In the great majority of cases gas, influenza or both rather than tuberculosis, are responsible for the symptoms of which these men complain.

These are difficult problems and ones that merit careful consideration. In addition to the effects of gas and influenza, new growths of the lung are likewise frequent causes of confusion. During the past year, I remember at least two instances in which I have "fallen down" on this diagnosis. I hope it will not happen again. The distinction between a chronic peribronchial tuberculosis and a primary carcinoma of the lungs may be and often is a most puzzling proposition. And the same may be said of the other conditions that I shall mention as lung abscess, bronchiectasis, and pneumoconiosis as ones in which a wrong diagnosis is often made. The type case in each of these processes is easy enough to diagnose, but typical cases are comparatively rare. All that I shall say has been said and doubtless better said before, but a careful review of these subjects will do no harm.

First it is wise to define the conditions that I shall here consider so that no confusion or misapprehension will arise.

Tuberculosis. Naturally, I refer to the chronic and not to the acute form of this disease and in a stage sufficiently active to cause symptoms slight or marked as the case may be.

Influenza. I do not mean by this term any acute process but refer entirely to that condition so frequently met with in which the patient complains of certain symptoms and in whom certain signs are found directly attributable in the patient's mind at least, to an attack of influenza in 1918 or 1919. These

* Read by invitation at the annual meeting of the Canadian Tuberculosis Association, Toronto, Canada, May 18, 1921.

patients often complain of loss of weight, strength and energy; there may be cough and sputum, the latter occasionally bloody; there may be fever and rapid pulse while in the lungs one may find little or nothing, or what is often the case, signs of a pleuritis and pneumonitis at one base.

Gas. Here again I refer to the condition for which so many of our ex-service men are now seeking relief and I might also add compensation. The symptoms of which they complain closely resemble those I have just mentioned concerning influenza. The detailed differences I will take up later.

New Growths. Primary cancer of the lung and not secondary, is the most frequent cause of error. It is to this form that I shall refer to here.

Abscess. I include under the term "abscess" one which is the result of a broken-down mediastinal gland as well as an abscess in the lung itself.

Bronchiectasis. This condition needs no definition.

Unresolved Pneumonia. Here again no definition of this is necessary.

Pneumoconiosis. I refer here to the condition found in the lungs of workers in granite quarries and certain other similar industries.

I shall consider each of these various conditions with particular reference to tuberculosis.

INFLUENZA.

As I stated above, I refer here to a certain condition which we have all seen and which at least *appears* to have been the definite sequel to an attack of influenza during 1918 or 1919. I use the word "influenza" for want of a better term, although the influenza bacillus has little or nothing to do with the symptoms. The following is a typical case:

J. C. W. Previous to having influenza with pneumonia in 1918, this man was always strong and athletic. Since that time, however, he has complained constantly of lack of strength and energy and shortness of breath. He has had some cough with sputum and a constant pain in the chest. He had been diagnosed as having pulmonary tuberculosis. On examination, I found his temperature, pulse, weight, blood, blood pressure to be normal. There were sticky rales and dry wheezes all over the right lung and over the lower one-half of the left, but there was no evidence of consolidation or cavity formation. The sputum

was negative for tuberculosis. His present condition I would diagnose as a chronic, asthmatic bronchitis following influenza.

This man had been called a consumptive and had been treated in a sanatorium for consumptives, the injustice of which is manifest. In looking over twenty such cases taken at random from my records I found a marked similarity to the one here given. They might roughly be divided into two classes,—one in which the signs in the lungs were conspicuous by their absence, the symptoms being purely constitutional, such as loss of strength and energy, shortness of breath, etc., with some cough and sputum; and a second group characterized by signs in the lungs such as dullness and rales at one or both bases without evidence of consolidation. In both groups temperature, pulse, weight, blood and blood pressure were strikingly normal. Many of these men had been definitely stamped as having pulmonary tuberculosis and had been treated in sanatoria. I would urge, therefore, that these men who give a definite history of influenza, especially if accompanied by pneumonia, be carefully studied before it is taken for granted that they have tuberculosis. Give these men the benefit of the doubt. Look them over, not once, but many times if necessary, but do not stamp them as consumptives unless you are sure of your facts. Do not be misled by an x-ray picture suggestive of tuberculosis. I have summarized the important points characterizing these late effects of influenza as follows:

- (1) There is usually a train of symptoms definitely related to and following an attack of influenza.
- (2) There are marked constitutional symptoms such as shortness of breath, weakness, lack of strength and energy and
- (3) In contrast to this, usually a normal temperature and pulse, blood and blood pressure and but little loss of weight.
- (4) There usually is some cough and sputum which is often bloody.
- (5) There is rarely any evidence of consolidation in the lungs but about everything else may be present, especially at the bases.

GAS.

The pathology in the lungs of these men who were gassed consists of a diffuse fibrosis not localized at the apex, base

or hilus but found in any region in the lung. The differences in the effect of the various kinds of gases are details that I need not go into here. The symptoms usually found in these cases are as follows:

- (1) Cough, often paroxysmal and especially marked at night and on any exertion.
- (2) Sputum, often bloody.
- (3) Hemorrhage, often in considerable amounts.
- (4) Pain, or a sense of constriction in the chest. This I have found to be a very constant and annoying feature.

On examining the lungs, there is often very little to be found or else there may be:

- (1) Dullness, usually at the bases, with diminished voice and breath sounds due to a thickened pleura.

(2) Râles of every variety and description. Among the constitutional symptoms the most characteristic are:

- (1) Loss of strength and ease of fatigue.
- (2) Shortness of breath.
- (3) Signs and symptoms of a marked psycho-neurosis, such as a tendency to dilate upon and exaggerate symptoms in every way, along with increased reflexes.

This last group of symptoms is a most characteristic one. Fever, rapid pulse, loss of weight, anemia, and other symptoms of tuberculosis are conspicuous by their absence. And yet the majority of these men have been and are constantly being diagnosed as having pulmonary tuberculosis. They often give a history of sudden acute febrile attacks with or often without cough and sputum. These attacks come on out of a clear sky and are accompanied by a high fever; they disappear as suddenly as they come, leaving a feeling of intense lassitude which lasts for a considerable time. These sudden attacks I have found to be very characteristic of these late gas cases.

The problem is a difficult one but I feel sure that thoroughness, patience, and a careful study of the striking points of difference between effects of late gas poisoning and tuberculosis will result in more correct diagnoses than are now being made.

The points that I consider it important to remember are as follows:

- (1) Do not take it for granted that a given process is tuberculous even with a suggestive x-ray.
- (2) Do not do the reverse.

(3) A general appearance of robust health with marked symptoms is evidence against tuberculosis.

(4) Remember that the lung complications resulting from gas are usually found at the base and not at the apices;

(5) And that the usual signs found are those of a thickened pleura and often a localized bronchitis, although in many instances little or nothing is found in the lungs.

(6) Bear in mind that following gas there is apt to be a marked increase in nervous symptoms of every kind.

(7) Do not take it for granted that these men who have been gassed are *not sick* and do not need treatment, even if you decide they do *not* have tuberculosis or indeed there is not much wrong with their lungs in any way.

(8) Treat the *man who has been gassed* and *not* his lungs.

NEW GROWTHS.

I do not include under this heading malignant disease of the lung secondary to new growths elsewhere. The diagnosis of such conditions should not be difficult. Primary carcinoma at the root of the lung, however, offers difficulties which may cause the keenest diagnostician to make mistakes. In looking over my cases, particularly those in which I failed to make correct diagnosis, I was struck with three points worth mentioning,—first, the fact that the patient is not older than 30-35 years does not mean that cancer is not present; second, that almost every sign and symptom suggesting pulmonary tuberculosis may be present, and third, that a negative x-ray, as far as cancer is concerned, is not necessarily conclusive evidence against a new growth, at least when the disease is in the early stages. A repeatedly negative sputum, progressive weakness and loss of weight in the absence of striking signs in the lungs, especially if the apices are clear, should make the physician suspicious of some cause other than tuberculosis. Among such causes cancer must be considered. The gradual onset of symptoms is a point to be borne in mind. As a general rule, pulmonary signs and symptoms lasting over one or two months, whether or not accompanied by constitutional symptoms in persons over 50 should in every case cause the physician to consider the possibility of a pulmonary neoplasm if only to rule it out. It is needless

to state that in the majority of instances an x-ray examination will give the most valuable evidence.

ABSCESS.

The usual case of lung abscess should offer no difficulty. It is the unusual case, however, that those of us who deal extensively with chest conditions are called upon to diagnose. A small, broken-down hilus gland or a small centrally located abscess may produce symptoms amazingly like those of tuberculosis. Time alone in such instances will give the correct diagnosis.

I was recently called to see a middle-aged woman who for some months had been running a fever with marked loss of weight and strength, with signs of the right apex amazingly similar to tuberculosis. Repeated examination of the sputum had been negative, while in addition the onset of her symptoms following the extraction of teeth under ether was, of course, suggestive of abscess. On the other hand, dullness, râles and fairly definite signs of consolidation at the right apex were striking evidence in favor of tuberculosis. The x-ray in this instance was a distinct help, showing as it did a process which was not really at the apex but apparently an abscess in the upper lobe. It may yet be possible that this patient will turn out to have pulmonary tuberculosis, but I doubt it. I certainly have not referred to it as such in talking to the patient or her family, although, of course, I have discussed this point at length with her family physician. Time and thoroughness alone will solve such problems as this. In considering the difference between a lung abscess and pulmonary tuberculosis, the following are to me at least, the important points to be borne in mind:

- (1) Onset of symptoms due to abscess are apt to be sudden and definite following some comparatively minor operation, such as nose and throat operation, extraction of teeth, etc.
- (2) Such an onset, however, does *not* rule out tuberculosis.
- (3) Repeatedly negative sputum examinations.
- (4) Increased leucocyte count and other signs of sepsis.
- (5) X-ray examination, repeated if necessary, will usually help.

BRONCHIECTASIS.

Here again, under ordinary circumstances,

there should be no difficulty in diagnosis. Occasionally, however, the diagnosis between a tuberculous process at the base of the lung and bronchiectasis is not an easy one to make. Personally, I have never seen a case of apical bronchiectasis and should I do so I would probably call it tuberculosis and stick to that diagnosis most persistently until the contrary was proved. I have rarely seen club fingers in tuberculosis, although it doubtless is present in many cases; likewise I have never seen a case of bronchiectasis without club fingers. I used to consider clubbing of the fingers a sign of chronicity and on this sign alone have occasionally ruled out tuberculosis. Believing as I did that it took many months and usually years to produce club fingers, I have felt that where this sign was present with repeated negative sputum examination, that tuberculosis was extremely unlikely. Recent experience has taught me, however, that such is not the case and that marked clubbing may appear in three or four months' time. Although therefore the presence of club fingers does not mean the disease has existed for years, it is nevertheless an important point against tuberculosis and along with a persistently negative sputum and a characteristic x-ray picture, is an important point in diagnosis. Fever, rapid pulse, loss of weight and strength and other signs and symptoms usually associated with tuberculosis may all be present.

UNRESOLVED PNEUMONIA.

January 26, 1921, I saw, for the first time, a big, strong, healthy looking girl of 16, who had a slight but definite tuberculous process of the apex of her right lung with a positive sputum. She looked a picture of health and felt so. She did remarkably well until March 5th, when she came down with an acute process at the top of her left lung which turned out to be typical lobar pneumonia of the left upper lobe. A month later she came in to see me with an interesting condition in her chest. The tuberculous process at the right apex was unchanged; at the left, however, there was a dullness, bronchial breathing and râles and, in fact, all the signs of a tuberculous consolidation. Without the history of this acute intercurrent infection, I doubt if anyone, seeing this patient for the first time, would have considered an unresolved pneumonia as a pos-

sible explanation of the new process on the left. It is hardly necessary to call attention to the difference in the prognosis, however, between a slight tuberculous process at one apex with an unresolved pneumonia at the other and a marked bilateral more than moderately advanced phthisis.*

In another recent case of a young girl of 16, I found a perfectly definite consolidation of the right upper lobe, with a high temperature, rapid pulse, cough, sputum, and loss of weight and strength. Although the sputum was negative and the x-ray, which I did not see myself, stated definitely that this was not tuberculosis but was beyond doubt an unresolved pneumonia, I was unwilling to accept this evidence. The whole clinical picture was that of acute and progressive pulmonary tuberculosis, so I told the mother my opinion and urged immediate sanatorium care. Recently the mother wrote me that her daughter did not go to a sanatorium, and was in splendid health. Perhaps this was tuberculosis, but I doubt it very much. I firmly believe that I was absolutely wrong in my diagnosis, for which, as far as the patient is concerned, I am exceedingly glad.

These two cases have made a deep impression on me. I am convinced that there are many more patients similar to these two, who are now under treatment and making brilliant cures in our tuberculous sanatoria and hospitals. I have no advice to offer in problems such as these except to take a most careful history, to go over the x-ray picture with care and repeat it if necessary, and finally not to take anything for granted either for or against tuberculosis.

PNEUMOCOONIOSIS.

I know very little about this subject. Until recently I have "taken it for granted," just as I said *not* to do in speaking of unresolved pneumonias, that the granite cutter who coughed and raised and in whose lungs certain signs were found, had chronic pulmonary tuberculosis whether or not the sputum was repeatedly negative. I have rather smiled at those who said that these men did not have tuberculosis and that their symptoms were purely due to the effects of inhaled stone dust. I am now forced to change my opinion. Re-

* It is only fair to state that this girl has subsequently grown steadily down hill and that her tuberculosis has rapidly extended so that the prognosis is now very grave.—J. B. H.

cent investigations have shown that marked changes may take place in the lung following inhalation of granite and other forms of dust, producing symptoms closely resembling tuberculosis but in which *tuberculosis plays no part*. X-ray examination of the lungs of granite workers taken while working and again later, after having quit work for some time, show striking differences and such changes for the better in the later plates, as to rule out any possibility of tuberculosis having been the cause of the pathological process in the first picture. These are simply comments on a somewhat vague and indefinite subject. To me at least, these late investigations have taught not to diagnose any stone cutter who coughs and looks badly as having tuberculosis, unless the sputum is positive. Take him away from his work for a while and watch results.

I realize perfectly how inadequately I have covered these subjects. To do justice to any one of them would by itself constitute a big problem. What I have said in regard to each of the conditions I have discussed may be summarized in a few words—thoroughness, not jumping at conclusions, and treating human beings and not cases.

Medical Progress

REPORT ON PSYCHIATRY

By HENRY R. STEEDMAN, M.D., BOSTON.

THE PSYCHIATRIC ASPECTS OF EPIDEMIC ENCEPHALITIS.

KIRBY and DAVIS¹ have made an intensive study of eighteen cases of typical lethargic encephalitis with sole reference to the mental aspects of the disease. It is the most systematic psychiatric grouping of this class of cases yet made.

The psychic disturbances present the general characteristics of an acute organic type of mental reaction, corresponding more specifically to a toxic-infectious psychosis.

In the acute stage psychic, torpor and delirium are the most frequently observed mental disturbances, although other clinical pictures may be encountered. Two types of sleep disturbance occur, hypersomnia and hypsomnia. The four gradations of the former are drowsiness, lethargy, stupor and coma. Hypsomnia is not common, but is occasionally an onset symptom and sometimes occurs at other stages of the illness. A great majority of these patients show de-

lirium at some stage. Transient delirious features during a stupor may be easily overlooked. In encephalitis the content of the delirium tends to centre about habitual trains of thought and occupational activities, but is sometimes determined by somatic sensations.

Before the onset of the lethargy or delirium, mood-changes are usually not marked. After the passing of the lethargic or delirious phase, euphoria frequently arises and with it sometimes uncontrollable laughter with appropriate mood. Features of a manic reaction are sometimes added to the euphoria and furnish a picture not distinguishable from a manic-depressive excitement. Depressive reactions in various grades of severity not accompanied by retardation have been seen following the stuporous or delirious stage. In the lethargic and stuporous stages there is apathy and apparent inactivity. This is chiefly a disturbance of showing effect rather than an absence of effect. Emotional response of some kind can be obtained from almost every patient, provided the stimulus is adequate. Disassociation of effect such as occurs in schizophrenia was not found.

In all of the unrecovered cases there were signs of some definite alterations in character or mood. This in a large proportion of them constitutes the only evidence of lack of recovery. These continuing alterations in character and mood consist of depressive effects, emotional elevations, irritability explosive reactions, stubbornness, apathy, etc. The extremely wide range of emotional reactions encountered probably indicates both that the difference between individual cases are very great, and that the mood varies markedly through the various stages of the disease. The findings are at least suggestive of a lasting damage in the emotional sphere in a considerable number of all cases.

Psychic torpor and emotional apathy appear to be the most important mental factors in producing the stupor, while rigidity and certain other muscular symptoms, when present, seem rather to be an expression of a motor phenomenon of the sort seen in paralysis agitans. The tendency to maintain given positions (catalepsy) is most often, if not always, associated with parkinsonian symptoms. No symptoms of negativism in encephalitis cases were observed and no typical catatonic syndrome such as occurs in dementia praecox.

In regard to the outcome of mental symptoms of epidemic encephalitis much evidence was found of persisting emotional alteration with little evidence of organic mental defects or dementia.

ACIDOSIS IN MENTAL AND NERVOUS DISORDERS

According to the already published literature on acidosis it occurs frequently in the following states: diabetes mellitus, fevers, nephritis,

phosphorus-poisoning, fasting, grave anemias, deranged digestion, auto-intoxication, chloroform and ether anaesthesia, and what is known as "biliousness."

Shaw² has also often met with it in practice in mental and nervous cases, and many fresh admissions to the County Mental Hospital, of which he is the superintendent, suffer from it. It is especially frequent in acute delirium, melancholia, and confusional and stuporous stages. His investigations, given in detail, make it very possible that it is also an important factor in the etiology of epilepsy. For the detection of acetone bodies in the urine he gives Rothera's formula—a simple and delicate test.

He reports nine recent cases from the above forms of mental disease, and three of epilepsy, in which acidosis was present and which he treated with good results in five of the former. Acetonuria was present in all the epileptics, but no record of their progress is given. In cases which recover, it is noteworthy that the improvement synchronizes with diminishing acidosis. These are only a few of many cases: For example, acetonuria has been present in ten out of the past twenty-five admissions at this hospital, and the mental disorder in all ten was of the confusional type. Fasting could be excluded as an etiological factor in all except four of the above mentioned cases.

The indications for treatment are rest, warm clothing—in view of the fact that acidosis is nearly always associated with low blood pressure—sleep, nutritious diet, avoiding fat, plenty of carbohydrates, artificial foods, free purgation, and alkaline medication: potassium citrate, especially when combined with carbonates of calcium and lithium and bicarbonate of soda. Where the symptoms are very serious, complete rest in bed and, in addition to the above, enemata of 20 per cent glucose solutions are required.

In conclusion he directs attention to:

1. The profound structural alteration in the neurone caused by acidosis, and the extreme danger of permanent injury to it by frequent attacks.
2. The urgent need of early diagnosis and the recognition that such cases are very ill indeed and need complete rest and proper treatment or they may become invalids for life and a burden on the community.
3. The simplicity of the diagnosis.
4. The fact that as a rule acidosis can be readily counteracted by efficient treatment.
5. The need—in view of acidosis being a probable etiological factor in epileptic states—for careful investigation and the probability that, if such is the case, efficient alkaline treatment may cure the condition if recognized at the outset of the fits. The giving of bromides would seem to be dangerous in such a state as it only tends to dull cellular activities.

6. The danger to the patient is in not adopting a firm attitude. If such cases are at once sent to the hospital before serious symptoms come on there would soon be marked diminution in the admission rate at "asylums."

7. The predisposition to neurotic diseases afforded by acidosis, above all to tuberculosis.

THE EMOTIONAL FACTOR IN HYPERTHYROID STATES.

Maranon² not only admits that emotional stress is particularly liable to induce hyperthyroidism when there is already a pre-disposition to excessive thyroid function, but also insists that emotional stress alone may be sufficient to bring on hyperthyroidism even in the normal. Hyperthyroid states are of seven different types besides the classic exophthalmic goiter: the cardiovascular form, the nervous, the consumptive, the digestive, the diabetic and the climacteric, as also simple goiter assuming the exophthalmic type. None of the symptoms are pathognomic, and in doubtful cases he always rejects the assumption of hyperthyroidism unless there are at least three of the main symptoms: unstable tachycardia, tremor, enlargement of the thyroid, exophthalmos, retraction of the upper eyelid, emaciation, pronounced motor restlessness, emotional instability or sensations of heat with vasomotor irritability, localized especially in the thyroid region. There was a history of intense emotional stress coinciding with the onset of the hyperthyroidism in 28 per cent. of his 159 cases of hyperthyroidism in the last two years. This proportion is too large to be explained as a casual coincidence. He gives brief summaries of forty-eight cases. All confirm anew the extreme etiologic importance of prolonged and depressing emotional stress, and the development of exophthalmic goiter at critical periods, especially in women. The glycosuria noted by Cannon and others immediately following emotional stress, and the hyperglycemia noted by Maranon can be explained only by the blood stream's being suddenly flooded with some substance, such as epinephrin, from sudden exaggeration of endocrine functioning. A minute dose of epinephrin injected in a person whose thyroid is known to be functioning to excess induces tremor, pallor, palpitations, goose flesh, chilliness in the back, dilation of the pupil and sometimes lacerimation and voiding of urine—organic phenomena such as may accompany emotional stress. This emotional organic reaction to epinephrin does not occur in the normal, or unless a much larger dose be given. But it occurs exactly as in hyperthyroidism if the subject has been given large doses of thyroid extract beforehand.

INTERPRETATION OF THE WASSERMANN REACTION IN MENTAL CASES.

Jackson and Pike³ have succeeded in throw-

ing some new light on this familiar subject, their investigations leading them to conclude that:

A positive Wassermann reaction of the blood serum alone indicates nothing further than that the individual has come in some manner in contact with syphilis, either hereditary or acquired. It does not mean that the mental disorder from which he suffers is due to syphilis.

A diagnosis of neurosyphilis should be based on definite neurologic signs and spinal fluid reactions, irrespective of the readings of the blood serum.

Psychoses in which there is a positive Wassermann reaction of the blood serum, but showing no other serologic, neurologic or clinical evidence of syphilis do not demand anti-syphilitic treatment for the reason that such treatment will not modify the mental condition; furthermore, neurosyphilis is seldom, if ever, superimposed on a well developed psychosis.

General systemic syphilis as shown by a history of infection, clinical signs and positive Wassermann reaction of the blood serum should be treated as such, but not with the view of favorably influencing the psychosis.

Antisyphilitic treatment avails nothing in well advanced cases of general paresis or tabes dorsalis.

Cerebral, cerebrospinal and spinal syphilis are amenable to treatment and anti-syphilitic therapy should be pushed to the limit.

Successful treatment of neurosyphilis resolves itself into the early recognition and therapeutics of the infection, and lies largely in the hands of the general practitioner and syphilographer; all syphilitics should be kept under routine observation for a period of at least ten years in order that vigorous treatment may be instituted at the first signs of involvement of the central nervous system.

ALCOHOL AND SYPHILIS AS CAUSES OF MENTAL DISEASES

Kirby⁴ presents extensive data regarding the past and present rates of incidence of alcoholic and syphilitic mental disorders in New York State to justify the following conclusions:

Alcoholism has declined perceptibly in the general population during recent year, the beginning of the decline antedating by some years the restrictions due to war conditions and the passage of the federal prohibition amendment.

Coincident with this decline, there has occurred a remarkable fall in the number of alcoholic psychoses, the lowest figure on record having been reached in 1920.

During the first period of the World War, there was a noticeable recrudescence in both alcoholism and alcoholic mental disturbances;

but after the United States entered the war in 1917, there was again a sharp fall which, so far as alcoholic psychoses are concerned, has not been again interrupted.

RATE PER 100,000 OF GENERAL POPULATION OF NEW YORK STATE OF ALCOHOLIC PSYCHOSES AND PARRESIS.

YEAR	ALL PSYCHOSES	ALCOHOLIC PSYCHOSES	PARRESIS
1913	64.1	6.0	8.1
1914	63.4	4.8	8.1
1915	64.0	3.6	8.4
1916	66.5	4.0	8.7
1917	69.0	6.0	8.7
1918	67.3	3.5	9.0
1919	66.3	2.6	8.6
1920	63.3	1.2	7.9

Psychoses due to syphilis reached the highest point of which we have a record in the year 1918. Since then a decline in the relative and actual number of cases has occurred which, in view of the increase of population, may be regarded as at least a hopeful sign. Whether or not the more thorough and scientific treatment of syphilis in its early stages will bring about a further reduction of neurosyphilis and syphilitic psychoses, is a question to be answered in the future.

From the standpoint of mental hygiene, the situation may be regarded as encouraging. A notable advance has been made in the direction of controlling one of the outstanding causes of mental disease, namely, alcoholism, and as regards a second great cause of mental disease, namely, syphilis, there are indications that education, prophylaxis and improved methods of treatment are beginning to yield some results, as yet slight, to be sure, but nevertheless, sufficient to be considered a sign of progress.

THE LAW OF ANTICIPATION IN THE INSANE.

According to Kener,⁶ director of a large lunatic asylum, insanity, when transmitted, occurs at an earlier age in each successive generation. Of 250 pairs of parents and offspring, 39 per cent. of the offspring were found to have had their first attack of insanity before the age of 25, a considerable portion being congenital imbeciles. Mothers transmitted much more frequently than fathers, and daughters are affected more often than sons; also the offspring are affected at about half the age of the parent, being in most instances either congenital imbeciles or cases of adolescent insanity. Similar inheritance was very striking in recurrent periodic insanity and in paranoia. The study of pedigrees reveals the differences of manifestation of a neuropathic taint. In some members of the tainted stock it may appear as chorea, epilepsy, migraine, neurasthenia, exophthalmic goiter or diabetes; in others, it may be a matter of temperament, eccentricity, exaltation, melancholy or feeble will-power. A neurotic inher-

itance is liable to bring about the establishment of certain morbid mental habits; and when such an inheritance is strong, there is great risk of the development of organized delusions. Proper care may keep the latter tendencies in check, but an improper environment in which there is temptation to drink, evil companions, and the like, may result in insanity, crime or suicide. In a third generation these inborn tendencies may appear in a more intensive form, resulting in congenital imbecility and feeble-mindedness. Kener has found this to be the case when two first cousins, not insane but coming of a tainted stock, have married and borne children.

PERNICIOUS ANEMIA AND MENTAL DISORDERS.

Jones and Raphael⁷ call attention to the diagnostic difficulties in pernicious anemia with associated mental disorder, and emphasize the following points:

1. Probably more cases of pernicious anemia are mistaken for arteriosclerosis than are generally recognized.
2. Patients with doubtful cases of arteriosclerosis, especially those with a history of remissions, should, as a routine procedure, have frequent blood counts made, and neurologic examinations for cord changes.
3. Careful history taking may reveal the so-called "pernicious" symptoms in cases that otherwise might be mistaken for arteriosclerosis.
4. The lack of comment in the literature on this phase of neuro-psychiatry is significant, and shows that the necessity of differentiating carefully in doubtful cases has not yet been fully recognized.

ARMY NEUROPSYCHIATRIC SERVICE STATISTICS

An analysis of cases admitted to the neuro-psychiatric services of the United States Army General Hospital No. 1 by Leahy⁸ is summed up as follows:

None of the cases appeared different from those encountered in civilian life, except that most of them had a military coloring.

Of the total number of 2,750 patients, 24 per cent. were psychoneurotics, 20 per cent. of the dementia praecox type, 12 per cent. were of the manic-depressive group, 10 per cent. mental defectives, 5 per cent. had organic nervous diseases, principally of the syphilitic type, 4 per cent. were definitely epileptic and 4 per cent. were constitutional psychopaths. There were only fourteen cases of drug addiction, or about 0.5 per cent. of the total admissions.

Many of the cases apparently of the praecox type appeared to be recovered with excellent insight.

Of the neurasthenic group, 26 per cent. of the patients gave a history of having had symptoms in civilian life, and of the hysteria

group 19 per cent. gave a history of similar trouble prior to army service.

A comparison of the group percentages found at this hospital with the group percentages of the total male admissions for the New York State Hospital service during the year 1919, is interesting. During this year the total first admissions at the latter were 6,791. Of this number, 3,527 were men. While a strict comparison is not possible, it is interesting to know that there is a close ratio between the percentage of cases of dementia praecox, namely, 20 per cent. in the army and 27 per cent. in civilian life, and between the percentage of cases of manic-depressive diseases, 12 per cent. in the army and 9 per cent. in civilian life. Dementia praecox in both instances forms the largest group of the psychoses. Comparisons between the other groups is impossible because the civilian state hospitals deal primarily with psychoses occurring at all ages and with unselected population. In 1918, of the total remaining population in the New York State hospitals, 59 per cent. were of the dementia praecox group. It will readily be seen, therefore, that our great problem, from the standpoint of psychoses, both civilian and military, is that of the dementia praecox group. If it were possible to trace these patients, the eventual outcome would be interesting and might throw some light on this perplexing problem.

LEFTHANDEDNESS IN THE MENTALLY DEFECTIVE

The observations reported on by Gordon¹ were made mostly in special schools for mentally defective children. The investigation originated from the observation made in April, 1918. In one of the classes, nine (37 per cent.) of the children out of twenty-four were writing with their left hands, and doing most of their work lefthandedly. The percentage of lefthanded children (i. e., with marked lefthanded activities) in ordinary schools was 7.3; in mental defective school it was 18.2. Lefthandedness in mental defective schools was more frequently associated with defects of speech than is righthandedness. In the case of twins, when one is lefthanded and the other righthanded, the lefthanded twin is frequently backward, less developed, highly nervous, or even in a mental defective school, whereas the righthanded twin is normal and in an ordinary elementary school. Among twins (a boy and a girl) there is a very high percentage (nearly one third) where one is lefthanded and the other righthanded. Among normal children the lefthanded are frequently the most efficient and capable; among the mental defectives it is exactly the reverse, lefthandedness being often associated with marked deficiency. Spontaneous change of lefthandedness to righthandedness in writing among mental defectives is often found to be asso-

ciated with progress in school work and in intelligence. The hypothesis suggested by Gordon is that something has occurred which has interfered with the proper functioning of the dominant hemisphere—in the majority of cases described it is the left hemisphere. Such a supposition would explain: (1) Why there are so many lefthanded in mental defective schools. The left hemisphere being affected has interfered with the proper functioning of the right hand, perhaps in only a slight degree, as many among the older children change spontaneously from left to the right hand in writing. The same cause has probably affected the functioning of many of the higher intellectual centers, supposed to be situated in the same hemisphere, involving such peculiarities as mirror writing and defective speech. (2) It would also explain why, in the case of left and righthanded twins, the lefthanded twin and not the righthanded is found in these special schools.

THE PHYSICAL CONDITION OF MENTALLY BACKWARD CHILDREN.

Kjerrulf² compares the data from 1,893 children in a regular school with those from 365 in a school for the mentally backward. There was a history of premature birth in 6.2 per cent of the former and in 16.2 per cent. in the latter group; there were 137 first born and 3.4 per cent. twins among the mentally backward; undescended testicles in 5.6 per cent. of the 215 boys, but the thyroid was of normal size in all but 0.54 per cent. of the mentally backward while it was distinctly enlarged in 4.7 per cent of the children in the regular school. Ylppö has recently published a protest against classifying cases as congenital debility when in fact premature birth or hemorrhage from birth injury or both are responsible for the abnormal condition. He accepts a weight of 2,500 gm. as the limit below which the birth should be regarded as premature, but Kjerrulf thinks a length of 47 cm. is a better criterion.

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Book Reviews.

Operative Surgery for Students and Practitioners. By JOHN J. McGRATH, M.D., F.A.C.S. Professor of Surgery, Fordham University, Consulting Surgeon to the People's Hospital;

Visiting Surgeon to the Fordham, Columbus, and New York Foundling Hospitals; Fellow of the American College of Surgeons; Fellow of the New York Academy of Medicine; Member of the American Medical Association. Sixth Revised Edition, with 369 Illustrations, including Full-page Color and Half-tone. Philadelphia: F. A. Davis Company, Publishers. 1921.

This small handbook of surgery is divided into ten parts: the first part consists of such subjects as anaesthesia, incisions into various tissues, treatment of hemorrhage; part second is devoted to the surgery of the head and face; part three, neck and tongue; part four, thorax; part five, abdomen and back; part six, rectum; part seven, hernia; spermatic cord, intestines, etc.; part eight, urinary system; part nine, upper extremity; part ten, lower extremity.

The illustrations, 849 in number, are of very inferior quality. They are often unnecessary and explain but little of the text. The cuts are also poor, as well as not being original. It is felt that, if a new book of this type is to be of greatest value, these illustrations should be more original or illustrative of unusual rather than of common points.

A great deal of space is devoted in each chapter to the anatomy of the various regions. This, in a way, is of distinct value, but the following text is necessarily rather too brief. A great many data of dead and obsolete operations are described where space could have been devoted more profitably to newer forms of technic.

Some of the drawings, however, are excellent and the descriptive text is good.

The book, on the whole, is brief and well balanced. Its value probably should lie more to the student and beginner than to the experienced surgeon.

Urinary Analysis and Diagnosis. By LOUIS HREITZMANN, M.D. Fourth Edition. William Wood & Co. Price \$4.00. 362 Pages, 131 Illustrations.

In this fourth edition of *Urinary Analysis and Diagnosis*, the author devotes somewhat more than half the book to an enumeration of the various tests for the constituents, normal and abnormal, of urine, and describes clearly the appearance, not only of the intrinsic components of urinary sediment, but of many extrinsic materials, such as feathers and threads of various sorts. The latter part of the book is given over to the art of diagnosing various urinary diseases from the urinary findings. The book closes with a very good chapter on renal function tests, written by Walter Dannreuther.

To the reviewer, there seemed to be an al-

most impassable chasm between the teachings of this book and modern medical thought. The theory of renal secretion propounded on page 6, for example, is far from that advanced by A. R. Cushny, whose monograph on "The Secretion of Urine" is a résumé of the best work on the subject. The diagnosis of urinary disease by means of urinary examination alone, appears to be a principle which the author is prepared to defend to the last gap. Unquestionably, much more can be done in this line than is usually attempted, and in typical cases a presumptive diagnosis may be made, but the author's confidence in what may be accomplished is misleading. For example, on page 124, speaking of the origin of hematuria, he says, "A little care exercised in discovering all the features present in the urine will, in most cases, lead to a positive diagnosis of the source of the hematuria." Given a urine filled with red blood cells, the diagnostician must hunt a long time to find evidence which will enable him to make a definite diagnosis between renal tumor, uninfected renal stone, the bleeding from chronic nephritis, or hemorrhage from a small vesical papilloma. This teaching, in these days of accurate diagnosis, by means of cystoscope and x-ray, leads to delay and uncertainty in treatment.

There is almost a suggestion of necromancy in the author's statement (p. 257) that persons affected with "lithaemia" are "always irritable and sooner or later suffer from neurasthenia and melancholia." May Heaven keep us from this dread disease, whatever it is!

There is much solid information in the book. Its value is considerably diminished, however, by the exaggerated importance assigned to the study of the sediment and by the failure of the author to take a more modern point of view in regard to several important issues. The illustrations are conventional and rather diagrammatic.

A General Introduction to Psychoanalysis. By PROF. SIGMUND FREUD, LL.D. Authorized Translation with a Preface by G. STANLEY HALL, President Clark University. pp. 402. Boni and Liveright, New York, 1920.

It is rare to find any branch of medicine or psychology presented so simply, clearly and modestly, and with such frank and full consideration of opposing views as is that of the intricate subject of psychoanalysis in these lectures by Freud. Although one may not agree with the author on various points, as for examples, the making of sex a predominating factor in the psychic life, magnifying the importance of the reproductive instinct, and the employment of psychoanalysis to the exclusion of other methods of treatment of the psychoneuroses,—he cannot fail to recognize in his

exposition of the subject the work of a great mind, and be impressed by much of his teachings. The text is less burdened with the technical terms which cloud the meaning of much that has been written on the subject, and the book is well adapted for popular instruction. At the same time, the psychiatrist and neurologist who may wish to keep in touch with the technique of psychoanalysis will no doubt find it of assistance.

The work is divided into three sections: part one devoted to the psychology of errors; part two solely to dreams and their interpretation, which comprises a third of the book, while the remainder covers the general theory of the neuroses—the meaning and development of the symptoms, the unconscious, resistance and suppression, the sexual life of man, the libido theory, fear and anxiety, transference and analytical therapy.

The preface by Hall is a highly appreciative yet discriminating critique. He does not accept all of the author's conclusions, noting that he deliberately neglects the "physiological factor" and builds on purely psychological foundations, also criticizing the psychoanalysts as somewhat too ready to apply their findings to the normal mind. These reflections, however, are only by the way, and he gives to Freud, whom he ranks as the most original and creative mind in psychology of his generation, unstinted praise for the flood of new light that he has thrown on so many fields of thought and endeavor.

To the English reader, not a little of the attraction of the lectures is due to the admirable translation which faithfully reproduces the lucid and conversational style of the lecturer.

Rational Treatment of Tuberculosis. By CHARLES SABOURIN, M.D. F. A. Davis Company. Philadelphia, Pa., Publishers.

It is very, very rarely that the translation of a book on a technical subject comes up to the original, and the present volume, although excellent in many ways, is no exception in that it manifestly suffers, perhaps from the inadequacy of the English language, to present the viewpoint of the original author. While tuberculosis is the same the world over, the treatment of tuberculosis and its handling from the economic, social and administrative point of view are not the same. On the contrary, they are widely different. This is one of the difficulties in giving a proper estimate of Dr. Sabourin's work. Much of what he says is, of course, common knowledge, although perhaps presented in a way which would not be accepted in this country. There is a chapter on "Tuberculosis and Phthisis, for instance; an attempt made to differentiate the two terms. This has been practically given up in America. There is likewise a chapter on "Congenital

Immunity from Tuberculosis," which would cause considerable dispute among many readers.

The statistics in regard to the mortality of tuberculosis are based on the French point of view. This is perhaps interesting but not valuable to American readers. In his chapter on early diagnosis, one at once meets with statements which would be directly contradicted here, for example, "X-ray examination . . . cannot be expected to disclose lesions in the apexes so mild that they escape the ausculting ear." He recommends subcutaneous and ophthalmic tuberculin reaction as a means of diagnosis. Both of these would probably meet with disfavor in this country. In the "Medication of Tuberculosis," he devotes a page to the value of creosote and guaiacol. In America we can at least give thanks that these two drugs have been practically disregarded. He says that treatment with lime salt is coming back into vogue, and states that he has seen remarkable results with iodine.

There is an immense number of subjects which have been covered very briefly in the 435 pages of this volume. There is much that is of general interest in this book, chiefly, however, because it differs in many ways from what we believe in this country and because it presents the point of view of another country. The translator has the unfortunate habit of using a multiplicity of very short paragraphs which do not add to the ease of reading the subject matter. On the whole, it may be said that the book is interesting, but it is to be doubted, however, as to whether much of its subject matter is to be accepted in the United States.

The Essentials of Histology. By SIR EDWARD SHARPEY SCHAFER, F.R.S. Eleventh Edition. Philadelphia and New York: Lea and Febiger. 1920.

Since its first appearance in 1885, successive editions of this standard descriptive and practical manual for the use of students have been favorably reviewed in the JOURNAL. This eleventh edition presents little change from its immediate predecessors. It is intended as an elementary text-book, comprising the essential facts of histology, but omitting less important details. It is a complete work of manifest merit in comparison with more bulky and elaborate treatises.

The Johns Hopkins Hospital Reports. Volume XXI, Fasciculus I.

This entire report consists in a most excellent monograph by Prof. William S. Halstead on the subject of "Ligations of the Left Sub-

Clavian Artery in Its First Portion." The historical survey is unusually attractive and well presented.

The whole article occupies 92 pages and has in addition a thorough bibliography and 11 photographs and plates of unusual value. There also is a 5-page chart giving summaries of all of the operations of this nature published in the literature with a brief description of the symptoms, physical examination, operation results, and comments. The histories of the author's cases and of many others are reported in minute detail, making the reading of these histories very valuable.

This monograph is a distinct contribution to the subject of aneurysm.

Diabetes Mellitus. A System of Diets. By HERMAN O. MOSENTHAL, M.D. New York: Paul B. Hoeber, 1921.

According to the preface, this "system of diets has been designed with the object of allowing any patient or nurse without special training in dietetics, to carry out the proper rationing for cases of diabetes mellitus." The system comprises six diet tables and comments upon the diets. It is quite a pleasure to see "none of the proprietary foods have been advocated in the present tables."

The six diet tables come in pad form so that a sheet may be torn from a pad, and thus the desired diet table given patient or nurse. On each sheet there is a space for special orders.

Diet Table I, called "Starch Free Diet, Qualitative List," presents in addition to those foods containing only water, protein, fat and sodium chloride, the vegetables containing about 5% carbohydrate.

Diet Table II, "Minimal Fat, Starch Free, Measured Diet" affords a series of diets yielding from 500-1250 calories. They are so arranged that the patient can see what to take each meal and can obtain much variety without overstepping diet prescribed. One of the possible diets would contain over 200 grams protein. It is difficult for the reviewer to conceive of a diabetic to whom one would like to prescribe such a diet.

Diet Table III, "Minimal Fat, Starch Free Diet—Weighed Diet" differs little from Diet Table II save that diets and food values are expressed in grams.

Diet Table IV, "Low Fat, Starch Free—Measured Diet" and Diet Table V, "Low Fat Starch Free—Weighed Diet" differ from each other chiefly in that in Diet Table V, grams are used where tablespoonfuls and cups are used in Diet Table IV. The diets available in Table V vary in calories from 500 to 2000, in all save the 500 and 750 caloric diets, the proportion of fat can no longer be considered "low" if the theories of Shaffer and of Woodruff regarding acidosis be taken into account.

Diet Table VI, "The Accessory Diet of Foods Rich in Carbohydrates," is accurate so far as carbohydrates are concerned. The reviewer dislikes lists giving food values which do not give the content of protein and fat as well as carbohydrate.

On the whole the reviewer doubts if the object of this System of Diets will be accomplished. The diet lists are however, admirably suited for use in a diabetic clinic by physician skilled in handling Diabetes.

Current Literature Department.

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THE USE OF PITUITARY EXTRACT AND SCOPOLAMINE-MORPHINE IN OBSTETRICS.

MITCHELL ROSS (*The Canadian Medical Association Journal*, Vol. xi, No. 5, May, 1921) compares the opinions of several obstetricians on the use of scopolamine-morphine and pituitary extract in obstetrics. He does not approve of giving the latter to primiparae on account of increasing the danger of perineal laceration, retention of the placenta, or injurious effect on the child. He feels that it is of definite value in many cases where a uterine inertia develops in multiparae when only a few more contractions should expel the child; he considers four or five minims as enough for each dose, while eight should never be exceeded, and he considers sixteen minims as the maximum total. Of scopolamine-morphine, the initial dose should not exceed one-sixth grain of morphine or 1/150 grain of scopolamine. In repeating the latter, not more than 1/200 of a grain should be given, while morphine should never be repeated. This form of anaesthesia is much better adapted to hospital than to private practice. [A. W. C.]

BENIGN NEOPLASMS OF THE FEMALE PELVIS.

HORSFALL, FRANK L. (*The Canadian Medical Association Journal*, Vol. xi, No. 5, May, 1921) takes this subject up in detail. The article is difficult to review. He takes up their pathology, frequency, diagnosis, and treatment, and gives a short history of early abdominal operations for pelvic tumors. He says in regard to treatment that there seems to be some evidence that radium treatment of some of these neoplasms, especially myomata, may cause malignant degeneration, and advises surgery in these words, "It is, perhaps, within the realm of conservatism to say that the treatment in all cases of neoplasms of the pelvis is surgical." [A. W. C.]

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THE DURHAM, N. H., CONFERENCE.

THE need of physicians in rural communities is a subject of interest in other States than ours, as shown by the discussions which have taken place at the recent State Conference at Durham, N. H.

Dr. Charles Duncan, Secretary of the New Hampshire Board of Health, arranged meetings for discussion and, incidentally, showed that the Board had done more constructive work in the past three years than had ever been accomplished before and that the State is being well looked after by various public health agencies which are employing nurses to carry on the details of recognized methods in dealing with the health of school children, tuberculosis, and the general problems of sanitation. Dr. William R. Emerson of Boston has been especially interested in the Nutrition Clinic at Manchester, and, with others, is assisting in the development of a new State Society under the title of The New Hampshire Child Health Council.

A study of the medical situation shows that there are one hundred and twenty towns in New Hampshire without a doctor, one town being thirty-five miles from the nearest practitioner. As one reads the reports of the State Board of Health and the number of nurses

employed in public health work, the question comes to mind as to the attitude of our New Hampshire brethren toward the functions of the nurse. Here, in Massachusetts, some of our men feel that nurses are taking a certain proportion of practice from the doctors and suggest that nurses are too ambitious and are usurping functions which belong exclusively to the practice of medicine.

Perhaps the New Hampshire nurses may be able to convince the people that they are a subordinate part of the medical service rendered and intend to cooperate with rather than evict the doctor. A very vital suggestion is made in the desirability of resuming a full medical course in Dartmouth in order to train men who may be much more likely to remain in the State and provide the necessary medical care.

Bowdoin having also given up graduating physicians, the probability of retaining the requisite number of young men in both New Hampshire and Maine, interested in medicine, is very doubtful. There are so many opportunities for young physicians at the present time that the question of supply is certainly serious however much some may ridicule the alleged conditions. The remote rural community cannot offer inducements which will appeal to many and yet everyone concedes that the child on the far-away hillside should have all possible consideration. The various suggestions for meeting human needs must be considered and the best possible solutions adopted. If the facts are as suggested in a recent report of the conference, there is need of moral regeneration in New Hampshire quite as much as readjustment of medical service. When one reads statements indicative of extremes of any type of human delinquencies, one can always hope that there may be a lack of mental perspective in the observer and the great preponderating mass of well-behaved people temporarily underestimated. If conditions in our neighboring State are not ideal it is evident that vigorous corrective work is being prosecuted.

JUSTICE TO AN HONORED MEMBER OF OUR PROFESSION.

At the last annual dinner of the Massachusetts Medical Society the President introduced among other speakers Dr. Frank H. Parker, who had served long and faithfully in caring for the leper colony on Penikese Island. During the thirteen years of this service Dr. Parker had necessarily relinquished all associations which would have left ties, by means of which, general practice could be resumed. It is reasonable to expect that the State might find occupation for a good servant when the service in which he had spent the best of his productive years was discontinued.

While it may not be feasible for the State to provide a pension, there is probably a place in some state institution where he might be useful and be able to earn a dignified living. It may be that the department under which he served has tried to find a place for him, but if an ideal position is not open some work should be provided and in this way the Commonwealth could show appreciation of a service which was of distinct value and which required self sacrifice.

MEDICAL NOTES.

THE METROPOLITAN LIFE INSURANCE COMPANY states that the death rate from tuberculosis of the lungs was 20.7 per cent. lower in the first three months of 1921 than in the corresponding period in 1920. There was a greater decline among white persons (23 per cent.) than among colored persons (14 per cent.). The group of insured white persons under 25 years of age, shows a reduction of 27 per cent. in the mortality from this disease. A 26 per cent. reduction is observed for colored persons under 15 years of age and of 15 per cent. between 15 and 24 years. With advancing age, there is a tendency toward reduction in the percentage of decline in mortality for both white and colored lives.

If the present downward tendency of the tuberculosis death rate continues, 1921 will have a mortality figure for this disease surpassing the records of all previous years in the public health history of the United States. The most encouraging feature of the current tuberculosis mortality record is that great declines are occurring at those ages where the rates are highest.

DR. FRANCIS XAVIER CORR has been nominated by Governor Cox as a member of the Board of Registration in Medicine, to take the place of Dr. Augustus L. Chase of Randolph, whose term had expired. Dr. Corr was born in 1865, graduated from Boston University Medical School in 1898, and lives at 622 Freeport Street, Boston. Dr. Chase was first appointed a member of the board in 1894 and has served continually since that time. He has been faithful and constant in serving the state.

ALLAN J. McLAUGHLIN, formerly Health Commissioner of Massachusetts, is reported to have stated that inadequate control of the communicable diseases of children is actuated by certain basic defects in local organizations due to failure to coördinate and utilize unofficial voluntary agencies and failure to develop a community spirit and to secure the hearty support of the individual citizen.

PRESCRIBING OF ALCOHOLIC LIQUORS.—House Bill 7294, passed by the House of Representa-

tives June 27 and by the Senate August 8, provides that only spirituous and vinous liquors may be prescribed for medicinal use. Other permits are void. Vinous liquors must not contain more than twenty-four per cent. of alcohol.

Physicians are limited to one hundred prescription blanks for every ninety days, more than one fourth of a gallon of vinous liquor or any liquor that contains more than one half pint of alcohol for the use of any one person within any period of ten days.

If it is desired to prescribe more than this amount the consent of the commissioner of internal revenue must be obtained.

DURING the week ending August 27, 1921, the number of deaths reported was 174 against 184 last year, with a rate of 11.98. There were 38 deaths under one year of age against 46 last year.

The number of cases of principal reportable diseases were: Diphtheria 38; scarlet fever 11; measles 11; whooping cough 10; typhoid fever 3; tuberculosis 48.

Included in the above were the following cases of non-residents: Diphtheria 9; scarlet fever, 1; typhoid fever 2; tuberculosis 3.

Total deaths from these diseases were: Diphtheria 3; whooping cough, 1; typhoid fever 1; tuberculosis 14.

Included in the above, were the following non-residents: Diphtheria 1; typhoid fever 1.

THE opening of wards in general hospitals to tuberculous patients will be of enormous benefit not only to the two million declared victims of the disease in the United States but also to thousands of others in whom the disease is still easily suppressible. Many of these fear the stigma of an avowed tuberculosis hospital, and put off going to it until recovery has become long and difficult. In a general hospital they could easily be placed in separate wards so as to protect other patients and the diagnosis of their disease kept private.

THE high price of arsphenamine (salvarsan) is a constant incentive to marketing useless fake substitutes. Large quantities of such have recently been detected in New York City and elsewhere. These products should not be bought from unknown persons. The Public Health Service also renews its advice against the use of any arsphenamine not licensed and regularly tested by the Hygienic Laboratory of the Service.

MORE and more, disease is being cured before it begins. Typhus, which drove Napoleon from Moscow and destroyed his army, is now being wiped out by soap and hot water. Smallpox, once classed with measles as a deadly but inevitable child's disease, is being ended with

tiny tubes of vaccine. Lead poisoning in potteries is being markedly checked by the workmen eating outside their workrooms and washing the lead glaze off their hands before eating at all. Children by thousands are being saved from slow starvation by attention to their teeth, which enables them to eat and to digest their food. Wherever modern public health work is in progress, lives are longer and safer than they were.

THE AMERICAN SOCIETY FOR THE CONTROL OF CANCER has practically completed the organization of each state for intensive educational work.

DR. JOSEPH E. INGOLDSBY, whose obituary notice appeared in the August twenty-fifth issue of the *JOURNAL*, was formerly a member of the Massachusetts Medical Society. He resigned October 6, 1920.

CORRECTION.—The title of Dr. Levine's paper in the issue of August 25, relating to poliomyelitis, should have read "The Diagnosis of Pre-paralytic or Early Poliomyelitis."

DR. A. EUGENE MESSIER, 151 Grand Street, Worcester, Mass., who has conducted a general practice for ten years has arranged for a service in the Brooklyn Eye and Ear Hospital for twenty-one months.

MEDICAL SCHOOL FOR SHIP DOCTORS.—Arrangements have been made for a graduate medical school in connection with the Broad Street Hospital, N. Y. City, for ship doctors.

There will be a complete x-ray department and the school has forty thousand dollars worth of radium.

The course covers four weeks along any one line, divided into a term of one week at a time thus giving doctors in port opportunity to study during shore leave.

Special instructions covering skin, malaria, leprosy, typhus, and tropical diseases will be given.

The officers are: Drs. William H. Dieffenbach, president; A. J. Barker Savage, dean; Robert T. Morris, first vice-president; Lefferts A. McClelland, second vice-president; Walter Gray Crump, third vice-president, and Maximilian Stern, secretary.

THE HARVARD GLEE CLUB, according to reports, is antagonistic to vaccination as practiced by the French.

While there is every reason for requiring vaccination of every one entering this country, the individual should be protected against methods which are not up to standard, and if the technic is faulty, the procedure should be standardized and no one be obliged to submit to careless or improper manipulation. If

a bad result follows, the antivaccinationists will exploit it.

THE NATIONAL CHILD HEALTH COUNCIL has selected Richland County, Ohio, as a field for the demonstration of the methods to be employed in the development of healthy children.

The council is composed of six national organizations wholly or partly engaged in promoting the health of children. These bodies are the American Child Hygiene Association, American Red Cross, Child Health Organization of America, National Child Labor Committee, National Organization for Public Health Nursing, and the National Tuberculosis Association. It is stated that officials, physicians and citizens generally in Mansfield, in this county, have promised hearty coöperation in the experiment.

GIFTS TO HARVARD.—One great outstanding contribution to preventive medicine is the gift to Harvard University of nearly two million dollars for a school of public health. Additional resources are in prospect, if needed, which will enable the university to bring into coördinate relation all the research work and teaching which would be necessary under this plan. The world will benefit by this work made possible by the Rockefeller Foundation and one more great opportunity exists for men to fit themselves for positions of greatest usefulness.

In the United States, 18 States provide for the physical examination of every child entering industry, but no State has provided for examinations of working children at regular intervals. Belgium has adopted the advanced program of a medical examination for every juvenile not later than a month after he has entered an industrial occupation, to be repeated once a year until the child reaches 18, and oftener in case of disease.

THE SHEPPARD-TOWNER BILL.—"The United States can well afford to invest the needed billions in the establishment of motherhood on a sound basis." (*Suffragist*, November, 1920, p. 274.)

Miss Alice Paul.—"We intend to insist that the United States assume entire responsibility for the maintenance and education of children until they become of age. When the women of the world have junked the battleships and other impedimenta of war, enough money will be released to take care of these reforms."—*Washington Herald*, October 25, 1920, p. 7.

Mrs. Harriet Stanton Blatch, daughter of Elizabeth Cady Stanton: "Every mother, rich or poor, should receive government endowment as a direct recognition of the service of motherhood. . . . Pay for mothers should be the first among the social and economic demands presented by women voters in their fight for full equality."—*Washington Times*, October 13, 1920, p. 6.

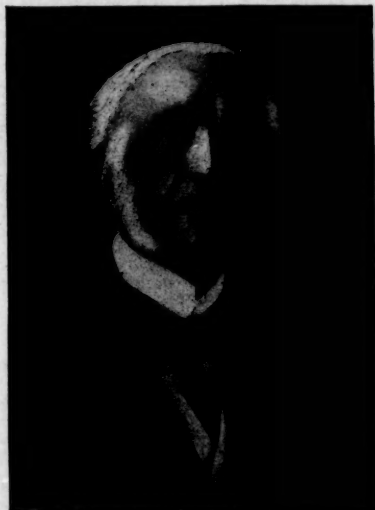
Miss Helen Todd: "Place the mothers on the government pay roll and pay them the money that would otherwise be spent in preparing for war." (*Ibid.*)

Miss Julia Lathrop: "Maternity benefit systems are not an experiment. . . . No such system ever undertaken has ever been abandoned. Instead the tendency of changes in existing legislation has always been toward including larger and larger groups of the population, toward increased benefits and toward the compulsory as contrasted with the voluntary principle of insurance." (Letter of transmittal for Children's Bureau publication, "Maternity Benefit Systems in Certain Foreign Countries," p. 10.)

These quotations show where the Sheppard-Towner bill is leading us. Study the bill and the motives of its proponents.

Shall it be accepted as an experiment now, with the possibility of having to attack its administration later?

Miscellany.



Photograph by Bachrach.

DR. STEPHEN SMITH

FOUNDER and first president of the American Public Health Association. He is now in his 99th year and his approaching centennial will be celebrated with the semi-centennial of

the American Public Health Association at New York City, November 8-18.

There may be a feature in the form of a Health Exposition which would consist essentially of public health exhibits of various kinds at the Grand Central Palace or the Madison Square Garden. The long illness of the treasurer of the project has so greatly retarded financial preparations that there is a possibility that the Exposition will not be conducted.

Up to the beginning of the present century, the problems of public health remained largely engineering and bacteriological in nature. About fifteen years ago, however, progressive leaders began to recognize that some of the most important causes of preventable diseases and death involved quite different elements and must be dealt with by quite different methods. Of all the factors in the general health rate, there are three:—infant mortality,—tuberculosis and venereal diseases,—which present an outstanding challenge to the health administrator, and the technique which has been developed to deal with these problems, has introduced wholly new forces into the movement as a whole.—C. E. A. WINSLOW, *General Medical Director, League of Red Cross Societies.*

Correspondence.

ACTIVITY OF THE PROFESSION IN NEW JERSEY.

15 Lombardy St., Newark, N. J.,
August 25, 1921.

Mr. Editor:—

In your JOURNAL of August 18, 1921, you speak of cooperation between the medical profession and insurance companies and complain because there has not been more cooperation of the great mass of practitioners.

In New Jersey, the whole of the profession is thoroughly aroused to the importance of the subject. In 1920 the Legislature passed a chiropractic law, giving them a separate board, without demanding any educational requirements whatever, either academic or technical, simply that they should pass an examination which the board prescribed. In 1920 the profession introduced the Limited Practice Act and succeeded in having the previous chiropractic bill repealed and passed their own Limited Practice Act, placing a chiropractor on the board. During this period at one time there were two hundred physicians who went to Trenton, the next time six hundred and the third over a thousand. The medical profession is thoroughly aroused. If you have any concrete plan whereby we can enlist the support of the insurance companies, as Chairman of the Welfare Committee, I will gladly place it before the other members, as we are trying to organize our state so that doctors shall be a real power for good in health and educational matters.

Yours very truly,

WELLS P. EAGLETON, *Chairman,*

Welfare Committee, Medical Society of New Jersey.